THE OIL TRUSTS & ANGLO-AMERICAN RELATIONS

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BY

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AND

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PREFACE

It seems that oil has fallen into bad odour. It is popularly believed to excite the worst passions, to rouse in business men a greed more consuming than the greed of gold, to move statesmen to Machiavellian designs. Even to have served with an oil company suggests having signed on with a pirate crew. Is not an oil magnate invariably more suspected than a coal baron? The wickedness of the latter is comparatively parochial, but the evil purposes of the oil magnate seem to reach across the seas to the far corners of the earth. A millionaire like Mr. Henry Ford, who produces automobiles in mass, is given a warm corner in the people's heart, but one who produces the fuel, without which the Ford car could not leave its shed, becomes unaccountably unpopular. Yet if we take our oil millionaires individually, how harmless they appear at home! Rockefeller is a confirmed philanthropist who has clearly been embarrassed by his wealth. Lord Cowdray is lavish in his charities and boyish enough to have a fleet of yellow motor cars. Sir Henri Deterding has a fine love of horses and fox-hunting. Sir Charles Greenway is an enthusiast

of golf, with a private course laid out among his acres. The benevolence of Lord Bearsted has not been quenched by his having held the Lord Mayoralty of London. How is it that an oil trust, the creation of these men of gentle genius, can call up hatred in the breast of the mildest critic of capitalism? The "Radical" element in the United States, if we may judge by the report of a Committee that has inquired among other things into the ways and lesser known habits of the oil industry, is profoundly stirred by suspicion of the "oil trust," which was supposedly demolished in 1911. To pour oil on political waters, even in Europe, has now become a simile for raising storms. How and whence comes the evil in the possession of a commodity which, by its adaptability for human use and handling, is essentially one of the greatest servants of mankind?

It arises in the popular idea of oil as power, a conception which has only grown up within the last twenty years. When the first American oil well was drilled in 1859, the only commercial use for oil was for the homely lamp. The business of the oil industry was to refine the crude oil into kerosene (lamp oil) without including therein the more volatile fractions (gasoline or petrol) which were liable to make the lamp explode, and assassinate the unsuspecting consumer. With the development of modern industrialism went another use for oil—to lubricate more and more machinery—but while it thus performed the function of power-saving,

it did not acquire the function of power-producing until the two inventions were perfected of the internal combustion engine and the oil-spray burner for boilers. The first of these made use of the wasted volatiles (gasoline or petrol), and the second utilised the residual oil (fuel oil), left over in the refining process, by burning it in the form of spray under boilers for raising steam. Later on, one Doctor Rudolf Diesel constructed another kind of internal combustion engine to explode these heavy residual oils by compression. Here, then, was the great power development of the twentieth century. Oil became the popular power-producer. "Men," said the Preacher, "have sought out many inventions." They certainly love engines, and petrol, fuel oil, Diesel oil—easily handled, economically consumed—became the most fascinating fuels that ever delighted the soul of the engineer.

The oil of the olive has been called the "oil of gladness." But here was another kind of oil—from the rock sands underground—that has become the "oil of service," bringing dominion over time and space. It was a wonderful discovery, but how old, how human was the way in which it was exploited! It was no sooner seen as a power-producer than it was desired and coveted for its power over others. In "The Precepts of Ptah-Hotep," which, we are told, was compiled about the year 3550 B.C., it is written: "There is a man that saith 'Power (is therein),' and he saith, 'I seize for myself that which I perceive.'" Five

thousand four hundred and more years later the same sentiment prevails.

To trace the influence of this idea of oil upon the course of Anglo-American politics is the object of this book. Rumour has gone abroad over two continents or more that Great Britain has been tempted by the dream of an oil hegemony; that, suffering the present supply of oil in American hands, she has been planning to secure the future supply for herself. Almost this is taught in the schools in France and the United States. One publicist, malice-winged with imagination, has conjured up the story that certain men in Great Britain "silently drew up statistics of the world's oil supplies, noticed their rival's (America's) reserves would soon be exhausted, set about obtaining a monopoly of all available sources, and carried out their plan almost in entirety by the adroit use of financial combinations and diplomatic pressure." [1] According to this tale the *coup d'état* was accomplished by the "silent efforts of a few men such as Sir Marcus Samuel, Lord Cowdray, Lord Curzon and Professor Sir John Cadman." Proudly do we read that "their success is comparable with the great triumphs of the Roman Senate in its palmiest days." If only it were true!

There is something in the story, of course. Great Britain has an interest in oil and the United States has an anxiety. These actors on the public stage, who have been singled out, have each played an

[1] *Le Pétrole*, by Francis Delaisi, 1920.

oil part in various British scenes, if not the leading rôles. Moreover, some privileged spectators, misconceiving the British "plot," have applauded them vociferously and attracted the attention of foreign critics at inconvenient moments. Notable among these privileged spectators was Sir Edward Mackay Edgar, now President of a British oil group. In a literary fling that appeared under the somewhat bombastic title of "Britain's Hold on the World's Oil," in the September 1919 issue of *Sperling's Journal*, he declared: "The British position is impregnable. All the known oilfields, all the likely or probable oilfields, outside of the United States itself are in British hands or under British management or control or financed by British capital. . . . America . . . will have to purchase from British companies. . . . The outer world is securely barricaded against an American invasion in force. We hold in our hands the secure control of the future of the world's oil supply. We are sitting tight on what must soon be the lion's share of a raw material indispensable to every manufacturing country. . . . It will be within the limits of the commanding position that the future has in store for us to hold up the entire world to ransom in the distribution and the price of this vital essential." Unfortunately the foreigner took Sir Edward Mackay Edgar in all seriousness. Possibly because he was not well known abroad, his words were freely quoted in the American Press as if spoken on behalf of England. Every anti-British interest in the United States

seized upon this incident to demand Government retaliation. The harshness of the note struck by Sir Edward was echoed in the diplomatic Notes that followed between Washington and London. And who can doubt that the story of the British *coup d'état*, which was told to the French public, had its genesis in the text of *Sperling's Journal?* Other versions of the tale of British oil duplicity will be found scattered about the world's literature, if they do not already appear in the subject catalogues of libraries. Surely it is time to rescue truth from rumour, to piece the established facts together without prejudice or propaganda, and to arrive at some sane and frank judgment of the rights and wrongs of the British and American positions. Let us begin.

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CORRIGENDA

Page 11, line 6, for "Kas-i-Shirin" read "Qasr-i-Shirin."
Page 49, last line but one, for "Société Générale de Huiles de Pétrole" read "Société générale des huiles de pétrole."
Page 60, line 16, for "Bahrain" read "Bahrein."
Page 190, footnote 1, for "Shell Trading and Transport Company" read "Shell Transport and Trading Company."

PART I

GREAT BRITAIN AND OIL POWER

CHAPTER I

LORD FISHER AND NAVAL OIL POLICY

ADMIRAL LORD FISHER, with his expletives, his Jeremiads, his storms and his visions, may have become a trifle faded. But to understand the oil policy of Great Britain one cannot avoid beginning with his tenure of power at the Admiralty. Possibly some unknown, thinking engineer in the stoke-hold patterned out the future of oil fuel in the Navy before the Admiral woke to his vision. Possibly some mild and retiring junior suggested the thought which the Admiral seized upon with a volley of oaths and worked out with his fierce energy. One may like to think that something of the sort happened. But there is no record of it, no rumour even of a precocious midshipman exploding his elder's views on coal. So one returns to Lord Fisher. The fact is that as early as 1880, if not before, Lord Fisher had foreseen the displacement of coal by oil in the furnaces of the British fleets, and had even looked forward to the displacement of both by the use of oil in internal combustion engines.

To the ignorant layman, if not to the naval expert, nothing seems more remarkable than the uncanny foresight with which Lord Fisher predicted

before 1914 the future course of naval warfare. Letters written by him to Lord Esher in 1904 described in detail the German submarine campaign of 1917. Laymen and Admiralty experts alike cannot but respect his provident advocacy of the future place of oil. Even a chemist so distinguished as the late Lord Moulton admitted that his eyes were opened for the first time by Lord Fisher to the importance of oil fuel. In 1882, Lord Moulton met the Admiral at Marienbad, taking a deserved rest-cure after bombarding Alexandria, and records how, during a peaceful afternoon's walk, the Admiral drummed out: "The use of fuel oil adds 50 % to the value of any fleet that uses it." In those days Lord Fisher was mostly ridiculed as "the oil maniac." But his mania had genius in it, and there is no doubt that the period of five years and three months from October 21st, 1904, while he held the office of First Sea Lord of the Admiralty—"the period of his greatest activity and his preparation for a war with Germany"[1]—saw the inception of our national policy in regard to oil.

To get an intelligible, civilian idea of the naval importance of oil fuel, let us read the dicta of Lord Fisher himself. After all, he had to explain the subject to the ignorant laity—his political chiefs—and the following extracts, from a memorandum he compiled for them at a later date, are singularly fresh and lucid:—

[1] "Records": Admiral Lord Fisher.

"The use of oil fuel increases the strength of the British Navy 33 % because it can re-fuel at sea off the enemy's harbours. Coal necessitates about one-third of the Fleet being absent re-fuelling at a base (in case of war with Germany) some three or four hundred miles off!"

"With two similar Dreadnoughts oil gives three knots more speed—that is, if ships are designed to burn oil only instead of oil and coal—and speed is everything."

"Oil for steam-raising (*i. e.* burning under boilers) reduces the present engine and boiler-room personnel some 25 %, and for Internal Combustion Engines would perhaps reduce the personnel over 60 %."

"The sailor's life on the 70,000 h.p. coal-using *Lion* is worse than in any ship in the service owing to the constant coalings."

"It is an economic waste of good material to keep men grilling in a baking fire hole at unnecessary labour and use 300 men when a dozen or so would suffice."

"At any moment during re-fuelling the oil-engine ship can fight—the coal-driven ship cannot; she is disorganised, the whole crew are black as niggers and worn out with intense physical exertion. In the oil-driven ship one man turns a tap."

"It is a criminal folly to allow another pound of coal on board a fighting ship."

"Oil does not deteriorate by keeping. Coal does. You can store millions of tons of oil without fear of waste or loss of power, and England has got to store these millions of tons, though this reserve may be gradually built up. The initial cost would be substantial but the investment is gilt-edged."

And much more to the same vivid effect. The Admiral is mostly at pains to explain to the dull and uninitiated that burning heavy oil (called fuel oil), when sprayed through a nozzle, under boilers is far better than burning lumps of coal under the same boilers. The engineer will tell you that the efficiency ratio of fuel oil to coal is about 4 to 7: that is, that you obtain the same amount of steam power by burning 4 tons of oil as by burning 7 tons —some say 8 tons—of coal. At the same time Lord Fisher had a vision of the introduction of the oil-using internal combustion engine into the battleship.

> "It must be admitted that the burning of oil to raise steam is a roundabout way of getting power! The motor-car and the aeroplane take little drops of oil and explode them in cylinders and get all the power required without being bothered with furnaces or boilers, or steam engines, so we say to the marine engineer, 'Go thou and do likewise.' . . . The Internal Combustion Engine with one ton of oil does what it takes 4 tons of coal to do; and having no fumes or smoke is an indescribable fighting asset."

But here, apart from the submarine and some smaller craft that explode heavy oil by compression in the Diesel type of internal combustion engine, Lord Fisher's vision still waits fulfilment. There is not yet a Diesel-engined battleship in the British Fleet.

Naval ethics, however, are beyond our purview. We have no wish to enter the controversial lists with Sir Percy Scott and the deadly foes of the Dreadnought. We are concerned only to demonstrate the fact that, battleships or submarines, Lord Fisher was the instigator of an oil policy for Great Britain. Far be it from us to suggest by any innuendo that he was the instigator of the particular oil policy that Mr. Churchill later adopted, and the Admiralty mishandled. Lord Fisher was primarily moved to get a hearing for oil, to get the revolutionary idea of having some sort of policy for oil fuel instilled, by little drops, into the minds of ignorant statesmen and prejudiced sea-faring men. He was the pioneer, the voice of the prophet calling "Prepare for oil" in the wilderness of coal. The Admiralty Board had not emerged very long from the era of the sailing ship. Sea power had but lately demanded oak and sailcloth. Was there not a Press and pamphlet agitation within the memory of some who had fought at Trafalgar to testify to the alarm of naval experts at the possible exhaustion of supplies of British oak? With the coming of steam the attention of the Lords of the Admiralty had been gradually forced to the consideration of the national resources of coal and steel. But oil already! It needed some of Lord Fisher's rude, uncompromising violence to move the more conservative into thinking about oil at all. There is no doubt that from 1904 Lord Fisher succeeded in turning the Admiralty's attention to the national supplies of oil fuel.

Looking at the oil question with the "official" eye, Lord Fisher would probably have dismissed it as one for his Director of Contracts—to buy supplies cheaply—and for his Director of Stores—to store them safely. There is good reason to believe that he figured it on these lines. Certainly he cannot be held responsible for the direct participation of the British Government in the oil business and for its subsequent politico-commercial manœuvres in that field. Lord Fisher was concerned, first and last, about supplies of the new fuel on which he said the British Navy must depend if it was to maintain its superiority. There is nothing to indicate that he intended to make the Admiralty an oil company. His idea of security of oil supplies was to accumulate stores of it, to buy up fuel oil whenever the price was favourable and store it in steel tanks in the British Isles, adding to it till the war-time needs of the Fleet were likely to be safeguarded. He shared this idea with—he probably borrowed it from—Sir Henri Deterding, a Managing Director of the Royal Dutch-Shell group, who used these significant words when he gave evidence before the Royal Commission on Oil and Oil Engines :—

> "I am going to raise every penny I can get and build storage, and even when I have built five million tons of storage I am still going on building it, even if it is only for the pleasure of looking at it. It is always so much condensed labour stored for the future. . . . Oil fuel

> when stored does not deteriorate as coal does. The stocks would therefore constitute a national asset, the intrinsic value of which would not diminish."

It is not to be supposed that Lord Fisher knew very much about oilfields and oil production. He has, for instance, spoken of Canada as an "immense sure oil area," which is absurd; and of Trinidad as being able to supply all the requirements of the British Navy, which, as the war showed, is yet more absurd. But he did know what the Navy wanted, and his simple slogan was "Build reservoirs and store oil." He did not say: "Go into the oil business and compete with Standard Oil and Royal Dutch-Shell, whenever you can, the world over." Indeed, he had the common sense to see that what mattered was command of the seas, not command of oil production. He had an eye even on the world's oil-tankers afloat on the ocean. "Oil-tankers," he has written, "are in profusion in every sea, and as England commands the ocean she has peripatetic re-fuelling stations on every sea and every oil-tanker's position known every day to a yard! Before very long there will be a million tons of oil on the various oceans in hundreds of oil-tankers. The bulk of these would be at our disposal in time of war. Few or none could reach Germany." The main tenet of Lord Fisher's oil faith—keep on storing oil—was right. Unfortunately, the oil policy which eventually received the seal of the British Government's approval went much further, and contained

dangerous, if not explosive, elements as disconcerting to friends and allies as to enemies. Let us, then, look into the early development of this policy with some care, and consider why, if Lord Fisher started right, others went wrong.

CHAPTER II

MR. WINSTON CHURCHILL AND NAVAL OIL POLICY

At this point in our story the scene shifts, much as it does in vaudeville, from London to the sunny tropics. About the year 1900 an Englishman named William Knox D'Arcy was looking for oil in the deserts of southern Persia. He had discovered it once, but in a remote place (Kas-i-Shirin) that seemed unsuitable for commercial development, and he contemplated giving up the quest when another prospector, searching for some equally elusive mineral, met him in the way and told him of a "field of oil" in the Baktiari Hills. This was the beginning of the discovery. In May 1901, D'Arcy obtained that wonderful concession from the Shah of Persia—it still reads like musical comedy—giving him the exclusive right for sixty years to drill for, produce, pipe and carry away oil and oil products throughout 500,000 square miles of the Persian Empire, throughout the whole of it, in fact, with the exception of the five northern provinces bordering the Caspian: Azerbaijan, Ghilan, Mazanderan, Astrabad and Khorassan. The Shah's Government reserved for itself a royalty varying with the net

profits of the future business. Two years later a Company [1] was formed to exploit one square mile of D'Arcy's concession in the area now known as the Maidun-i-Naftun oilfield, and as this area lay in the territory of the wild Baktiari tribesmen, it was deemed wise to allot 3 % of the shares to the Baktiari Khans, a fairly cheap insurance against local trouble. So the oil "question d'Orient" was picturesquely staged.

The scene shifts back to Whitehall. Soon after Lord Fisher's appointment in 1904 as First Sea Lord, a committee was set up at the Admiralty to consider and make recommendations as to how the British Navy should secure its oil supplies. Such a familiar political figure as Mr. E. G. Pretyman was responsible for that sphere of inquiry, and he has related how his colleagues on that Committee [2] were able to prevent what was imminent at that time—the passing of the whole concession into foreign hands. The City of London is a curiously parochial place whose financial population is largely given over to gossip and etiquette. One of the rules of its etiquette is that a proposition must never be "hawked." One of the results of its gossip is that a proposition can hardly be broached without being instantly rumoured as "hawked." And at that time it was scarcely etiquette even to consider an oil proposition. In how many quarters was D'Arcy

[1] First Exploitation Company, with capital of £600,000.

[2] (The late) Sir Gordon Miller, Sir Frederick Black and Mr. Jenkins. Consultant—(the late) Sir Boverton Redwood.

turned down as a " hawker " of speculative wares? In the end, as everyone knows, the concession was taken up by the Burmah Oil Company and the late Lord Strathcona and held by them, and operated, until the Anglo-Persian Oil Company was formed in 1909. And if Mr. Pretyman's Committee was instrumental in bringing into that hazardous enterprise the cautious directors of the Burmah Oil and the late Lord Strathcona, who were Scots as well as Imperialists, it deserves a niche in history.

In 1906 the Admiralty Board and its host of Committees fell upon evil times. A Liberal Government had come into power, committed to a stern policy of retrenchment. Amid the general limitation of naval armaments, even the little oil committee was dissolved. Mr. Pretyman had joined the rhyming band of songsters who chorussed: " We want eight and we won't wait." Meanwhile, the Burmah Oil Company and Lord Strathcona went ahead and spent money and struck high-grade oil in commercial quantities.

On January 25th, 1910, Lord Fisher, the " oil maniac," retired from the office of First Sea Lord, but happily remained a member of the Committee of Imperial Defence. He has related how, two years later, in May 1912, the Prime Minister, Mr. Asquith, and the First Lord of the Admiralty, Mr. Winston Churchill, descended upon him at Naples. It reads like an embassy to Achilles sulking in his tent, except that the ambassadors had a more effective bribe than the beautiful Briseis. A Royal Commis-

sion was to be constituted on " Oil Fuel and Oil Engines for the Navy," and they offered him the chairmanship, repeating no doubt his own words that " oil was the very soul of future sea fighting." The bribe was taken. " Though not intending to work again," wrote Lord Fisher, " yet my consuming passion for oil and the oil engine made me accept the chairmanship." Here begins the next " day " in the genesis of British oil policy, but the lord of creation was now Mr. Winston Churchill.

" The World Crisis 1911–1914 " is admittedly a book that leaves no ambiguity as to the great and audacious part played by its author as First Lord of the Admiralty. Sometimes it obscures a little the unostentatious parts played by others of a more humble disposition. Mr. Churchill, in recounting the steps that led to the creation of a Fast Division of battleships, records: " We could not get the power required to drive these ships at 25 knots except by the use of oil fuel." That involved changing, as he says, the foundations of the Navy from British coal to foreign oil. So the Royal Commission was set up to solve the oil problem. Said Mr. Churchill bluntly to its Chairman: " You have got to find the oil; to show how it can be stored cheaply; how it can be purchased regularly and cheaply in peace; and with absolute certainty in war. . . . But . . . your Royal Commission will be advisory and not executive. It will assemble facts and state conclusions. It cannot touch *policy* or action." This is a point to be remembered.

It was before this Royal Commission on Oil that Sir Henri Deterding gave evidence. It becomes plain that while Lord Fisher was the instigator of a policy for oil, and while Mr. Churchill was the power that decided what policy should be adopted, they drew some useful oil ideas from Sir Henri Deterding. Lord Fisher frankly admitted it. In his Memorandum on "Oil and its Fighting Attributes" (March 3rd, 1913) he wrote:—

> "Mr. Deterding, in his evidence before the Royal Commission, confesses that he possesses in Roumania, in Russia, in California, in Trinidad, in the Dutch Indies, and shortly in Mexico, the controlling interest in oil. The Anglo-Persian Company also say he is getting Mesopotamia and squeezing Persia, which are practically untouched areas of immense size reeking with oil. Without doubt Mr. Deterding is Napoleonic in his audacity and Cromwellian in his thoroughness. Sir Thomas Browning says in his evidence that the Royal Dutch-Shell Combination is more powerful and aggressive than ever was the great Standard Oil Trust of America.
>
> "Let us therefore listen with deep attention to the words of a man who has the sole executive control of the most powerful organisation on earth for the production of a source of power which almost doubles the power of our Navy whilst our potential enemies remain normal in the strength of their fleets. What does he advise?
>
> "He says: 'Oil is the most extraordinary article in the commercial world, and the only

thing that hampers its sale is its production. . . . There is no other article in the world where you can get the consumption as long as you make the production. In the case of oil make the production first and the consumption will come. There is no need to look after the consumption, and as a seller you need not make forward contracts, as the oil sells itself. Only what you want is an enormously long, long purse to be able to snap your fingers at everybody. and if people do not want to buy it to-day to be able to say to them: 'All right; I will spend a million sterling in making reservoirs, and then in the future you will have to pay so much more.'"

Lord Fisher caught the right idea from Sir Henri Deterding, for this is how he concludes :—

"The British Empire 'has the long purse'; build reservoirs and store oil. Keep on building reservoirs and buy oil at favourable rates when they offer."

Probably the Admiral would have been cute enough to set Sir Henri Deterding, the Anglo-Persian Oil Company, and Standard Oil bidding one against the other for the Admiralty tenders—a sound commercial policy. How was it that the British Government did no such thing, but on the contrary put its official foot in the oil-production business by taking control of the Anglo-Persian Oil Company, one of the three companies which it could have played against each other? Mr. Winston Churchill has gladly accepted the responsibility.

It was characteristic of Mr. Churchill that he did not wait for the Royal Commission to tender advice. He pursued his own starry course as unaffected as a planet by the investigations of Greenwich Observatory. "Simultaneously with the setting up of this Commission," he writes, "we pursued our own Admiralty search for oil." In the course of this Admiralty business, a large forward contract for the supply of fuel oil was discussed with the Anglo-Persian Oil Company. The light gravity of Persian fuel oil was eminently suitable for Admiralty requirements, but the Company, being short of working capital, wisely asked for some payment in advance. Mr. Churchill appointed a committee to go out and report upon the oil resources of the Company in Persia. Here we begin to meet with now familiar friends. Admiral Sir E. Slade was Chairman—he is now a director of the Company. Professor Sir John Cadman was a member, being at that time Petroleum Adviser to the Colonial Office as well as Professor of Mining at the University of Birmingham. He, too, is now sitting in an official chair in the Company's office in Great Winchester Street. The other two members were geologists, and the Secretary was Mr. J. C. Clarke, whose skilful pen (as an official of the Petroleum Executive Department later on) can be traced in some official memoranda when the Government was called upon to defend its oil policy. This Committee, after a delightful trip, except for one geologist who fell ill at the Abadan refinery, reported favourably, and piously concluded :—

> "The Company cannot adequately develop this extensive concession without additional capital, and we understand that the question of H.M. Government affording financial support is under consideration. Should such a course be decided on, we are of opinion that it should be made a condition that the Government should have a voice in the direction of the Company's general policy."

Mr. Churchill caught up the official idea with his congenital exuberance, and in the twinkling of an eye a national oil policy was hatched, the possible political consequences of which could never have been studied. To his expert Committee Mr. Churchill has graciously given "the principal credit" for the achievement, not forgetting to add that "at the later financial stage the Governor of the Bank of England, afterwards Lord Cunliffe, and the Directors of the Anglo-Persian and Royal Burmah Oil Companies were most serviceable." Let us mark Mr. Churchill's own exposition of his oil policy in the House of Commons on July 17th, 1913, which at any rate is lucid enough:—

> "It is a twofold policy. There is an ultimate policy and there is an interim policy. Our ultimate policy is that the Admiralty should become the independent owner and producer of its own supplies of liquid fuel, first, by building up an oil reserve in this country sufficient to make us safe in war and able to override price fluctuations in peace; secondly, by acquiring the power to deal in crude oils as they come cheaply into the market. . . . This second

aspect of our ultimate policy involves the Admiralty being able to refine, retort, or distil crude oil of various kinds, until it reaches the qualities required for naval use. This again leads us into having to dispose of the surplus products—another great problem—but I do not myself see any reason why we should shrink, if necessary, from entering this field of State enterprise. We are already making our own cordite, which is a most complex and difficult operation, . . . and I see no reason, nor do my advisers, why we should shrink from making this further extension of the vast and various businesses of the Admiralty. The third aspect of the ultimate policy is that *we must become the owners, or at any rate the controllers at the source*, of at least a proportion of the supply of natural oil which we require. On all these lines we are advancing rapidly. . . . The interim policy consists in making at once a series of forward contracts for about five years with a certain power of renewal, to secure a regular and an adequate supply during this immediately future period at reasonable and steady prices. . . . In framing the tableau, if I may use such an expression, of the contracts which have now been prepared, three governing principles have been observed: first, a wide geographical distribution, to guard against local failure of supplies and to avoid any undue reliance on any particular source, so as to preserve as much security and as much expansive power or elasticity in regard to each source as possible; secondly, to keep alive independent competitive sources of supply, so as to safeguard the Admiralty from becoming dependent on any single combination; and thirdly, to draw

> our oil supply, so far as possible, from sources under British control or British influence, and along those sea or ocean routes which the Navy can most easily and most surely protect."

How Sir Henri Deterding must have shivered as he read of the international business of oil production, the most intensely competitive enterprise in the world, being compared with the business of manufacturing cordite, which had not yet become an article of everyday human consumption. Or did he merely smile at the picture of men in naval uniform refining crude oil and upsetting the demand for Shell motor spirit with an all-British "navy" brand? Or did he applaud the idea—possibly an ideal oilfield practice—of Admirals and marines landing drilling tackle on Mexican soil and merrily sinking wells in defiance of Article XXVII of the Mexican Constitution? Yet out of this impracticable madness grew the more reasoned folly of Admiralty participation in the oil business through a civilian intermediary, and Sir Henri Deterding has indeed lived to see an all-British brand of motor spirit, bearing the Union Jack on its advertisements, taking sales away from the Royal Dutch-Shell. He may yet live to see British Naval Marines protecting oilfield drillers at the point of the bayonet in Mosul. And all because of the "third aspect" of Mr. Churchill's "ultimate policy"—of becoming "the owners or controllers of a proportion of the supply."

The "interim" and the "first aspect" of the "ultimate" Churchillian policy was the straight-

forward idea contemplated by Lord Fisher of buying and storing oil in tanks. Mr. Churchill's memorandum dragged in the name of the Royal Commission on Oil, of which Lord Fisher was Chairman, but the furthest the Commission went was to express "the general opinion that circumstances might require Government financial assistance to be rendered." Indeed, it was mainly concerned with laying down a four years' standard of oil reserves. No doubt that was extravagant, and Mr. Churchill, worried over his Naval Estimates, forced his naval advisers, not without some liveliness, to agree upon a reduced scale of stocks. But on the top of it all Mr. Churchill carried through the part of his "ultimate policy" requiring ownership or control of a proportion of the supply, and compelled the Cabinet to agree to the principle of Government participation in the oil industry. He was not so worried over the "enormous expense of creating an oil reserve" as to shrink from duplicating that expense with an investment in a juvenile oil company. An agreement was entered into with the Anglo-Persian Oil Company under which the British Government agreed to subscribe for 2,000,000 ordinary shares and 1,000 preference shares, out of a total share capital of 4,000,000, and further to subscribe for £199,000 debentures.[1]

[1] Anglo-Persian Oil Company Acquisition of Capital, 1914. This Act of Parliament was followed by another in 1919, when the Company's capital was raised and the Government's subscription increased to 5,000,000 ordinary shares, keeping intact the Government's control.

Mr. Churchill, in his apologia, has conjured up the frightening spectre of "the oil supplies of the world in the hands of vast oil trusts under foreign control. . . . Oil had to be bought in a monopoly-ridden market." To be exact, there was Standard Oil (dissolved as a Trust in the United States in 1911) and the Royal Dutch-Shell combination, which waged a deadly war of competition wherever and whenever possible. "Monopoly-ridden" markets were few. And, if Standard Oil was foreign, the British Government have never had a better commercial friend than Lord Bearsted (Sir Marcus Samuel), the British founder of the Shell group, nor, as it turned out, than Sir Henri Deterding, Managing Director of the Royal Dutch Petroleum Company. Far be it from us, however, to suggest that it was not good policy to encourage the Anglo-Persian Oil Company even with advances of millions of pounds sterling. It is only the form in which the encouragement was given that we deplore. Is it argued that no better security could be found for the advances to be made to the contracting oil company than the allotment of ordinary shares to the Treasury? That argument we are now able to explode. The security originally proposed and actually carried out was the repayment of the advance by reductions in the price of the fuel oil under the supply contract. These price reductions, according to Mr. Churchill's own estimate, have now amounted to a sum which has repaid the Government's original advance of £2,200,000 nearly

three and a half times over! [1] Yet on the top of this security, Mr. Churchill demanded 2,000,000 ordinary shares, 1,000 preference shares and £199,000 debentures—in other words, a majority stock control. This was not the essential part of the financial security, but a gratuitous addition demanded by Mr. Churchill. Did he and his advisers simply love the idea of controlling something? His "experts" had suggested that "the Government should have a voice in the direction of the Company's general policy." The Government, in fact, obtained the power of appointing two directors and of defining their powers. True, these directors are supposed not to interfere in the ordinary commercial management of the Company, but they have the very exceptional power to negative any proposal made by the other directors. Of the consequences of all this more will be said. It is sufficient to observe here that Mr. Churchill had made and sealed the national policy—the policy of direct participation of the Government in the oil business.

[1] "The World Crisis, 1911–14," p. 134, footnote: "(3) The supply contract has enabled the Government Departments to save on the purchase price of the oil as compared with current prices about £7,500,000."

CHAPTER III

INTRODUCING MESOPOTAMIA

THE tangled oil history of Mesopotamia reads like a serial story of intrigue written for the studios of Los Angeles, of which the plot is a rather foolish pursuit for some vague hidden treasure. That civilised Governments in the twentieth century should be concerned would have appeared too fantastic even to the writer of a film scenario. Yet so it turns out, and, like the film serial, the story is apparently without coherence or end. It began in 1899 when Admiral Chester of the United States Navy was sent by his offended Government aboard the battleship *Kentucky* to demand compensation from the Turk for the worldly property of American missionaries somehow destroyed while the Armenians were being massacred in 1896. That in itself was a piquant situation worthy of Gilbertian drama. And the anti-climax was heightened when the gallant Admiral, his "moral" mission completed, returned to Turkey on an ordinary commercial steamer as the agent of American financiers to purchase concessions that had caught his unofficial eye from the battleship. Sailor, diplomatist and business man, he felt he had some chances with the

Sublime Porte. He was not very successful. He was promised enormous railway and mining concessions in Asia Minor and the right to prospect for oil in Armenia (massacres permitting) and in Mesopotamia. But negotiations with the Turk, as at Lausanne, were a prolonged affair, and in the meantime rivals appeared on the scene. The Sultan Abdul Hamid, scenting a little close bargaining, took the precaution in 1904 of transferring the ownership of the Mesopotamian oil rights from the Ministry of Mines to his own Privy Purse. By way of encouragement to the foreigner, he gave the right to a German concern, the Anatolian Railway Company, to survey the oilfields in the two vilayets of Mosul and Bagdad with some sort of option to develop them on a partnership basis. The Germans, imitating Abdul Hamid's own methods of diplomacy, condemned the oilfields and at once asked for a concession to exploit them. The Sultan was naturally hurt at this clumsy manœuvre and refused. In 1908 a third competitor appeared, the D'Arcy Exploration Company, prospecting for the Anglo-Persian Oil Company. Another careful survey was made, but D'Arcy, a better diplomatist than the Germans, made no precipitate move. A year later Abdul Hamid fell and the opportunist Admiral Chester, first off the mark always, concluded a revised convention with the Young Turk Government. But again the Admiral was unlucky. War postponed its ratification in 1911, and in 1912 the Germans reappeared, with a much more subtle

scheme. Largely with the help of Sir Ernest Cassel, who was desirous of promoting Anglo-German friendship, a British limited liability company—the Turkish Petroleum Company—was formed, with the Deutsche Bank, the Shell Group—one remembers that Sir Henri Deterding had his eye on Mesopotamia—and the National Bank of Turkey, as partners. The Company, in the name of these powerful interests, demanded back the old German concession of 1904. This is the stage at which the British Government thought it useful to intervene. Two arguments were no doubt officially put forward. First, the D'Arcy Exploration Company had made an appetising report on the Mosul and Bagdad oilfields. Secondly, under the Turco-Persian Frontier Protocol of November 17th, 1913, a narrow strip of territory was transferred by Persia to Turkey which was covered by the D'Arcy Persian concession. This the Turkish Government had agreed to recognise. It must have seemed desirable to strengthen the footing of the Anglo-Persian Oil Company in this Mesopotamian region. So in the beginning of 1914, at the instance of the British Government, the Turkish Petroleum Company was reconstituted. The Anglo-Persian Oil Company took over from Sir Ernest Cassel the 50 % interest of the National Bank of Turkey. The remaining interest was divided equally between the Deutsche Bank and the Royal Dutch-Shell group. Then the British Government joined with the German in a whole-hearted endeavour to coerce

the Turk into reconfirming the 1904 concession. They were successful. They secured from the Turkish Government (communication of 28th June, 1914) a lease of the oilfields of the provinces of Mosul and Bagdad. It cannot be denied that the British Government was already expert in some aspects of the oil-production business. The only person who had any immediate cause of regret was the unlucky Admiral Chester.

The fierce light of publicity has already been thrown on this deal by one of the commercial participants, no less an authority than one of the Managing Directors of the Shell Group, Sir Robert Waley Cohen.[1] He has written :—

> "These arrangements (the reconstitution of the Turkish Petroleum Company) were entered into at the instance of the British Government. We do not believe in mixing up politics with business: it leads sometimes to corruption, always to inefficiency, and it tends to convert what should be mere commercial rivalries into national animosities—a very serious disadvantage. Therefore we would have preferred to enter the Mesopotamian field . . . by means of a full association of friends in a purely commercial enterprise, but in the circumstances we could only accede to the wishes of the British Government and join in the arrangement of the Turkish Petroleum Company."

One can well believe the chagrin of the leaders of the Royal Dutch-Shell at this first offspring of

[1] In a letter to the Press of August 30th, 1921.

unholy wedlock between Government and oil trade. Indeed, he who was described by Lord Fisher as the " oil Napoleon " found himself humbly following a mere parvenu in petroleum aristocracy. This upstart Anglo-Persian Oil Company, with one foot upon a monopoly in Persia, had now firmly planted its other foot upon a monopoly in Mesopotamia.

Events moved swiftly in the summer of 1914. Within this little space of time, the oil policy which Mr. Churchill had extravagantly shaped and forced upon the British Government, the policy of Government oil trading, had already sown the seeds of diplomatic trouble in the Near East. But Mr. Churchill, obsessed with the need for war-preparedness, can hardly be blamed for not looking forward to the pursuits of peace, when the Great Republic of the West might acquire the Continental habit of backing up the business claims of its nationals.

CHAPTER IV

THE WAR ACCENTUATION

We will not attempt to write about the war from a new aspect. Even from the oil standpoint much has been said and written. Did not Lord Curzon summarise the matter as early as November, 1918, when at a dinner in honour of the Inter-Allied Petroleum Council he pronounced that "the Allies floated to victory on a wave of oil"? Not perhaps a happy simile technically, nor politically a welcome award of the laurels of victory, but it was at least a succinct expression of a real fact. For our present argument we are concerned only with this aspect—the extent to which the war accentuated the British policy in oil. There are discernible two lines of thought which need emphasis for their later consequences.

In the first place, everyone had realised that Lord Fisher had been right. In French the term for motor spirit is "essence," and it is true to say that both for naval warfare and for the military campaigns oil was the very "essence" of this mechanically-propelled war. No one, not excepting Lord Fisher himself, had quite appreciated the war-time importance of oil supplies.

Consider the Navy first. At the outbreak of

war 45 % of the British Fleet was burning oil under its boilers. The conversion of the remainder from coal-burning to oil-burning was speeded up, and the Admiralty demands for fuel oil had by 1917 jumped from 130,000 tons to 330,000 tons per month. Trinidad, pace Lord Fisher, could hardly produce that quantity in a year. And as demands went up, tankers went down through the German submarine campaign. Tanker transportation became one of the worst nightmares of war shortages. Indeed, these oil-tank steamers—the special targets of the German submarines—were being put out of action at the rate of one tanker every day in the early part of 1917. "So depleted," Lord Curzon has confessed, "were the stocks of naval fuel oil that the Fleet had to restrict its exercises and was becoming seriously handicapped in its duties." Indeed, there is this secret to be told, which, inconceivable as it seems, has not yet been divulged by any post-war autobiographist. The Admiralty had actually estimated, on the basis of the current rate of tanker losses, that the Navy would have no oil by December 1917, and that the Allies must then capitulate unless other means were found to increase oil supplies or modify consumption. In the memoirs of Mr. Walter H. Page, the American Ambassador at the Court of St. James's, is published an interesting letter from Lord Northcliffe, acting at that time as British Commissioner in the United States. The latter had just received a cable from Lord Balfour giving him the tidings that the British Fleet was in danger

of being laid up for lack of fuel oil. Oil was scarce in the United States then, as everywhere. "I read and re-read that telegram," wrote Lord Northcliffe, "and finally called up the Standard Oil head man. We met, and I gave him the cable to read, despite its 'Most urgent, most secret' inscription. He read it slowly twice, gave it back to me, saying 'If it can be done, it will be done.' I said nothing whatever about price. Those people started in right there, and oil is pouring across the Atlantic with giant strides and at a lower price than we have averaged over here. They could have squeezed millions out of our trouble if they had chosen. When I thanked them, they merely remarked 'It's our war as well as yours.'"

The simile of the great journalist, like that of the noble diplomatist, was not very felicitous, and we will let a few statistics of consumption speak for themselves. In June 1917 available stocks of fuel oil were 950,000 tons against a monthly consumption of 400,000 tons. In April of the following year, the monthly consumption had risen to 460,000 tons, and stocks to 1½ million tons. In October 1918 the monthly consumption was nearly half a million tons, and stocks had increased to 1,800,000 tons. It was undoubtedly a fine record of supply organisation, a wonderful productive effort. By the end of the war practically every ship in the British Fleets was burning oil; scores of submarines were consuming Diesel oil; and seaplanes and airships were breathing petrol vapour.

As for the oil demands of the Army, it was quickly forced on the attention of the War Office that modern militarism lives and moves upon the internal combustion engine, and that this, in turn, lives and moves upon the explosion of hydrocarbon mixtures. Motor lorries swarming on the ground, aeroplanes circling in the sky, and the creeping of innumerable tanks—this was the war picture left upon the mind of the oil man. The whole complicated machinery would have stopped without the motive power of petrol. How it impressed M. Clemenceau may be seen from his note to President Wilson of December 15th, 1917 :—

> "The French Army must not be exposed for a single moment to a shortage of the petrol necessary for its motor lorries, aeroplanes, and the transport of its artillery. A failure in the supply of petrol would cause the immediate paralysis of our armies and might compel us to a peace unfavourable to the Allies. Now the minimum stock of petrol computed for the French armies by their commander-in-chief must be 44,000 tons, and the monthly consumption is 30,000 tons. The safety of the Allied nations is in the balance. If the Allies do not wish to lose the war, then, at the moment of the great German offensive, they must not let France lack the petrol which is as necessary as blood in the battles of to-morrow."

High explosives, as M. Clemenceau knew, were equally necessary, but he was addressing the

American President, and it was oil from the East that was producing the requisite quantities of toluol. That was another side to the importance of oil. Said Lord Moulton:[1] "If it had not been that in one type of petroleum—that obtained from Borneo—there was a considerable proportion of toluol, my face would have grown permanently longer, and the small amount of hair which I still claim must have gone, for I should not have known how to keep up with the gigantic demands of our services for high explosives." And so, in all high official places, oil came into its own. Admiral, General and Civil Servant were alike left with a vivid sense of the overwhelming national importance of oil supplies. No one, except sailors, had thought much about oil before the war. Now everyone admitted it to his politics, to his club conversation, to his materialistic sense of things. It became part of the social and national vitality. Here was the first line of official thought responsible for later developments of British oil policy.

The second was the acquisition by the official mind of a more expert, more commercial way of thinking. The bureaucrats received their first lesson in the ways and manners of the oil business. Let us record a few measures of the oil bureaucracy. Naturally in those days of Whitehall expansion oil was made into a ministry. What was not? In 1917 the War Cabinet, confronted with the crisis

[1] 1st April, 1919, before the Institution of Petroleum Technologists.

over fuel oil supplies, had recourse to that blessed panacea—co-ordination. It decided to appoint a minister of Cabinet rank to co-ordinate the oil requirements of the Navy, the Army, and, if possible, of the Allies. The Prime Minister called upon Lord Long, who was at that time somewhat stranded in the backwaters of the Colonial Office, to undertake the job. Obviously, Lord Long knew nothing about oil, but in those days it was not the business of a ministerial co-ordinator to know his details. Very wisely Lord Long summoned Sir John Cadman to be head of his Department. It was called the Petroleum Executive, an odd title for a Department whose work was everything but executive. Its avowed functions were to reduce to tables the work of other good departments of State, to collect honest information as to the requirements and stocks of all petroleum products, to issue warnings to the departmental consumers and finally to instil the lessons of economy in oil consumption. Possibly its work of co-ordinating scattered statistics was a necessary and helpful step in the organisation of the organisers. There was for instance, the Ministry of Shipping, looking after the transport of oil from overseas. One remembers that all ships crossing the Atlantic were eventually fitted to carry oil in their double-bottoms. There was the Ministry of Munitions looking after the supplementary supplies of oil from home sources, from the distillation of oil shale and coal, by which means home supplies were actually increased from 12,000 to

50,000 tons a month. There was the Board of Trade regulating the civilian consumption of oil at home. A Pool Board of the distributing oil companies was formed to bury the hatchet of competition for the time, and the Petrol Control Department by its system of licences or rations was able to free for war purposes 23,000 tons of motor spirit per month, a quantity equal to the amount used by the British armies in France during the greater part of the war. Then there were the Allies, each demanding more oil than it could hope to obtain. As the Petroleum Executive by itself was helpless in a matter of this sort, the Inter-Allied Petroleum Council was constituted to co-ordinate the policy, supplies, and consumption of all the Allied Powers. The Allied countries were in fact rationed in oil, and we have it on Lord Curzon's authority that "in every corner of the world in which petroleum was used the deliberations of that body (the Inter-Allied Petroleum Council) had regulated the supply." Such was the departmental machinery that offered a sound, if elementary, education for British statesmen and bureaucrats in the world oil business. Besides all this machinery there was something more.

It was, as everyone knows, part of Mr. Lloyd George's war system to utilise the great commercial minds in the direction of affairs of State. As a general principle it was new to British ideas of government, and loosely applied it could be chaotic in result. But in the case of such essentially commercial business as the supply of oil there

was an excellent field for this system of mercantile administration. Already in the Petroleum Executive Department the political loyalty and war-time zeal of Lord Long were backed by the technical knowledge and genial tact of Professor Sir John Cadman. Already Sir Charles Greenway and his colleagues of the Anglo-Persian Oil Company were part of the Governmental oil machinery. But there was now placed at the disposal of the Cabinet by Sir Marcus Samuel the organisation and technical staff of his world-wide companies. Thus Sir Robert Waley Cohen went, in 1917, with Sir Frederick Black on a mission to the United States regarding American tanker tonnage, and met at the conference tables his rivals of the Standard Oil group. There was hardly a responsible director in any British oil company who did not take an administrative position in some Government Department. It would be wearisome to state the exact nature of the services rendered by the able commercial men who were engaged during the war in the oil affairs of the Government. Our point is to make clear that at the same time they were schooling in oil technique the permanent bureaucracy, and that the Petroleum Executive became in reality the nursery ground of the future oil business of the Government. Mr. Pretyman, when Under-Secretary of the Admiralty, frankly expounded the bald truth, to everyone's satisfaction :—

> "The Petroleum Executive," he said, "had a duty to perform, and that duty was to secure

> the best petroleum policy for the Empire—to secure that policy without fear or favour. . . . It naturally had to take an interest in the Anglo-Persian Oil Company, as indeed in all petroleum developments for the benefit of the Empire."

What plainer exposition could one desire? Is it not clear how commercial prospects led to the expenditure of State funds on permanent works in foreign parts which military necessities did not altogether demand, as, for example, in Mesopotamia? The system of government with which Mr. Lloyd George is said to have won the war was one where distinctions between State and private trading were necessarily lost. Oil men became nationally minded: officials became commercially oil-minded. Such were the marks of the war accentuation of British policy in oil.

CHAPTER V

THE NATIONAL OIL POLICY AFTER THE WAR

PERHAPS no Government in 1919 returned to its normal economic senses, certainly not the British. It would be euphemistic now to speak of Mr. Lloyd George's system of government. There was no longer any system. Some business supermen returned to business life and to their true proportions. Some, with new-sounding titles and other distinctions of war, dared not face their City chairs, and lingered in Whitehall. Some Civil Servants, anticipating the duller, less exalted days of post-war service, seized the opportunity while their war halos shone brightly, and accepted tempting offers from their business friends. But no one quite knew where he was in the general elation. For the most part the war-time machinery of government, though out of gear, went on into the peace. The Cabinet Secretariat still grew and prospered. The Ministry of Munitions continued under the name of the Ministry of Supply. And in particular the war " system " of oil administration not only went on, but was intensified. Lord Long, the Petroleum Minister, became First Lord of the Admiralty, the now historical seat of oil strategy. Sir John Cadman

and the Petroleum Executive were so firmly established that they submitted to no Cabinet overlord, not even to the Minister of Supply, or to the President of the Board of Trade. They became in fact a kind of oil secretariat to the British Cabinet, armed with barbed statistics and replete with the wisdom of their war-time commercial confrères. The Cabinet, in other words, maintained a technical adviser in oil affairs, whose staff and scope were at first much what they had been in war-time. There was, however, one significant difference. The directors of the Shell group gathered up their tents and departed to the recesses of St. Helen's Court, there to attend strictly to their own business. They, too, had learned lessons.

One must remember that the British Government, like all others, had still its war mind, was still thinking in terms of national defence. Had it not "floated to victory on a wave of oil," and must not the lady Britannia include in future this kind of wave in her dominion? It was now axiomatic that the Government of a country so dependent upon its sea power (fuel oil and Diesel oil) and its air power (aviation petrol), not to mention the mobility of its Expeditionary Forces (motor petrol) must have regard to its future supplies of oil. As a beginning the Cabinet decided that vast stocks of oil must be provided, both at home and round the globe at former naval coaling stations, to maintain adequate reserves of this "soul of modern warfare." The First Lord (the former Petroleum Minister) declared

that he must have stocks of fuel in Great Britain amounting to a twelve-months' consumption on a war basis. The Cabinet agreed. But what source other than Persia was to fill and to keep filled these enormous tank farms? The Government, it was held, must find alternative sources of supply as a safeguard and must guarantee security of supply by the strongest measure of British control. Baku, become Bolshevised, and America, being for the Americans, were out of the question. The world's oil resources were solemnly reviewed by the Cabinet. The world's normal economic organisation, which happened to include an internationally operating oil industry, was somehow left out of account in the review. In the end it seems to have been agreed as being most desirable, first, that the Royal Dutch-Shell group be made another Anglo-Persian, and secondly, the Anglo-Persian another Royal Dutch-Shell. Let us take the first ambition.

A Cabinet Committee had been appointed late in 1918 with the ominous title of the Petroleum Imperial Policy Committee, known more shortly in official parlance as the "P.I.P." Committee. It did not actually function till after the Armistice. Its chairman was the late Lord Harcourt, and among its other members were Sir John Cadman, the head of the oil secretariat, Sir Frederick Black, the Admiralty Director of Contracts, who became an Anglo-Persian Director, Sir Harry McGowan (of Nobel Industries Limited) and Mr. Kemball-Cook, who had been looking after tanker tonnage at the

Ministry of Shipping. The Committee's deliberations remained a profound secret, but in privileged circles it was well known that its object was the securing of a greater British participation in the oil-producing companies of the world, and particularly in the Royal Dutch-Shell. In the normal trend the British interest in oil production was rapidly increasing. But normal progress was too slow. Something on a much more comprehensive scale must be attempted and in much shorter space of time. Obviously, the Royal Dutch-Shell group was the weapon at hand, and the Committee had to consider that the neutral Dutch had a majority of the shares in the Royal Dutch Petroleum Company, which held the controlling interest in the companies of the Shell combine. From the British point of view the simple expedient was to anglicise the Royal Dutch Petroleum Company as far as possible.

The personality which engaged the attention of the P.I.P. Committee was Sir Henri Deterding, the Napoleon of the Royal Dutch-Shell combine. Even before the war his Napoleonism had given way to love of England in the affair of the Turkish Petroleum Company, and in December 1915 he had been naturalised. He now lent a willing ear to the Committee. What could be arranged? The objective would be most simply attained if the British interests in the Royal Dutch Company could increase their share holdings and obtain a majority stock control. How could this be effected? Obviously there might be a transfer of a block of shares to

Sir Henri Deterding, and from him thence to British nominees. Sir Harry McGowan, as the civilian member of the Committee, was instructed to make the financial arrangements with Sir Henri Deterding. That something like the desired control was obtained is obvious from unguarded references in a speech made by Mr. Pretyman on a great oil occasion, the laying of the foundation-stone of the Anglo-Persian Oil Company's refinery on May 7th, 1919. Mr. Pretyman more or less let the cat out of the bag. At that date the P.I.P. Committee was on the point of being disbanded, presumably because its mission had been fulfilled, and it was no doubt with the nature of that mission in mind that Mr. Pretyman said: "When the war came, the position was, as they all knew, that the British Empire, with its vast interests in the whole world, only controlled about 2 % of the world's petroleum supplies. . . . *Now as the outcome of the seeds sown and the processes in use,* concerning which he had no time to go into detail, he thought that *when adjustments were completed* the British Empire would not be very far from controlling *one half of the available supplies of petroleum in the world*, thanks to the *invaluable guidance which had been given.*" Thanks to Sir Henri Deterding and the P.I.P. Committee!

These candid confessions did not receive much publicity, but they were reported in America, exaggerated in the course of rumour, and it would be idle to pretend that the implications of such statements are not the stock-in-trade of our critical

American cousins. It was, however, quite wrongly taken for granted that the British Government, directly or indirectly, was interested in the Royal Dutch-Shell combination. The Foreign Office has more than once given an unqualified denial to this report. The British State was not *officially* interested at all. But British citizens had quietly carried out a *coup d'état*. Without a British share control of the Royal Dutch Petroleum Company, which then held the majority control in the Royal Dutch-Shell group of companies, how else could the British Empire have been said to be near controlling one half of the available supplies of petroleum in the world? Yet it was not the British Government, but British nationals, who effected the desired result. To be assured of the predominance of British shareholders in the Royal Dutch Petroleum Company in case of emergency was all that was necessary for the time. It will be remembered that the British Government had already, during the course of the war, taken over its nationals' holdings in the Royal Dutch in order to stabilise the exchange. In the next war it might do likewise. And in that event it would take over shares amounting to majority control, thanks to the P.I.P. Committee. That, as Sir Henri Deterding must have argued, was the most effective and least objectionable way of making Royal Dutch-Shell another Anglo-Persian.

The second step in this general policy of extending British interests in the oil-producing centres of the world fell naturally to the Anglo-Persian Oil Com-

pany. It must be confessed that the Anglo-Persian Oil Company has not yet become another Royal Dutch-Shell, but that is not due to any fault of Government plans or lack of Government desire, but rather to commercial difficulties and the lack of oil in certain parts of Mother Earth.

The Company's operations within the Empire had of course an avowed political as well as commercial objective. For example, in an endeavour to exploit Papua, which has so far yielded more cannibals than oil, the British Government went shares with the Australian, and the Anglo-Persian Oil Company merely carried out the field-work as their agent. The British Government has now retired from the venture, convinced that Nature does not always provide oil in localities desirable from the Admiralty's point of view; but the work goes on. Then, on the occasion of a proposal to prospect for oil in West Australia, we find the Agent-General cabling from London to his Government: "The Company was willing, on the advice of Sir John Cadman and of the British Admiralty, to try to find oil in Western Australia."[1] Was that the normal impulse of commercial expansion? It is,

[1] Taken from papers laid before the Parliament of Western Australia by the Minister for Mines (Hon. J. Scadden). It was claimed therein that the Anglo-Persian Oil Company was entirely British, that the Imperial Government dictated its policy, and that its aim was to develop oilfields within the Empire and so make Britain independent of foreign supplies. The particular scheme fell through because the Company could not obtain a large enough area for their prospecting concession.

however, to the credit of the Company's directors that they finally came to an arrangement with the Commonwealth Government whereby a joint subsidiary company was formed to erect and operate refineries in Australia for the distillation of Persian crude oil—and nothing else. Occasionally, business and politics went happily hand in hand. But whether we can hope for the same felicitous concurrence in the company's operations in other parts of the Empire remains yet to be decided. In Egypt the Company has lands but not oil. In New Brunswick, Canada, it has oil shale reserves, and in Newfoundland it has an exclusive concession to prospect the unoccupied Crown lands (for oil or timber?). To separate the political and commercial objectives in these Imperial expansions is more than we presume to do.

Outside the Empire it is different. Commercial considerations, it is said, alone prevail. The more economic distribution of supply to meet the Central-European and Mediterranean markets led the Company, we are told, to take an interest in Roumania (Steaua Romana Company of Bucharest), to sign a prospecting agreement with the Hungarian Government (a kind of Hungarian melody with the oil prospects sadly out of tune), and to acquire from the Greek Government (June 1922) the oil rights over the whole of Macedonia as defined by the Peace Treaty. But this point must not be overlooked. Our oil men, during the war, had become nationally-minded. Consciously or uncon-

sciously, national considerations entered into the commercial. How else, indeed, can one excuse that unhappy speculation when the Company acquired a large block of shares in the Scottish-American Oil & Transport Company? This concern had the vaguest of oil-production prospects, but it had a subsidiary—Tankers Limited—with a big ship-building programme, which would usefully enlarge the fleet of tankers flying the British flag. The financial disaster which befell both these Companies is common history. Is this the sign of purely business enterprise? The Company's ventures in Venezuela and the Argentine have also attained no commercial result up to the present.

We do not suggest that the expansion of the Anglo-Persian Oil Company merely unfurled the British flag in many foreign parts without finding any oil. The D'Arcy Exploration Company, which conducts the exploratory work of the Company outside Persia, is actively engaged in searching countries on the quiet for oil. What we do put forward is the fact that, with production interests in Asia, Africa, Europe and America, and with a fleet of tankers regularly multiplying in numbers, the Company has certainly been doing its best to become another Royal Dutch-Shell.

In unfolding this picture of post-war intensiveness in the British oil campaign, it has been necessary to depart a little from the chronological sequence of events. The far-flung excursions of the Anglo-Persian Oil Company naturally took time, but they

followed logically from the 1919 policy of extending British interests in the world's oilfields, of finding alternative sources of supply to the Persian nucleus, and of guaranteeing security of supply by the maximum amount of British control. While the idea of anglicising the Royal Dutch-Shell, in part fulfilment of the national objective, admitted of a quick and simple operation, the complementary idea of internationalising the Anglo-Persian is an affair of years, and still goes on.

CHAPTER VI

THE SAN REMO AGREEMENT

THE student of history will observe that Great Britain is an Eastern Power, not only on account of her Mohammedan, but also on account of her oil associations. She had already the oil of Southern Persia, and seeing that she was the mandatory power for Iraq, in the privileged position to advise the Arab State to reconfirm the pre-war grant to the Turkish Petroleum Company, she looked like getting the oil of Mesopotamia. Then she had Egypt, India, Burmah and British Borneo, on which to draw for oil. What she did not own of the production of the East Indies she could now rely upon Royal Dutch-Shell to provide at a price. All this must have been obvious to those statesmen who, like Mr. Lloyd George, were studying the world's geography. But, as Sir John Cadman, the chief of the oil secretariat, must have shown him on the map, there were Palestine, Asia Minor, Northern Persia and even Baku that fell within the Eastern oil sphere but outside the sphere of British influence or control. Here was call for diplomacy. France was, or was then to be, the mandatory power for Syria, through which a pipeline might conceivably

be laid to carry British oil from Mosul to the Levant. Moreover, France had some claims on Mosul, which she had pressed at the Paris Peace Conference. In the early stages of the war she had agreed with Great Britain upon the boundaries of their respective spheres of influence within the Turkish Empire, which they were then settling to demolish. Sir Mark Sykes and M. Picot were the signatories to the agreement reached in 1915. But whether Sir Mark Sykes was a greater expert on the East than on oil, or whether M. Picot knew what he was doing, the Sykes–Picot Agreement did not include the oil province of Mosul within the boundaries of Mesopotamia. The mistake was subsequently remedied by correspondence between Sir Edward Grey and M. Paul Cambon. And when the Armistice was declared, the British troops, whose line in January 1918 was not 100 miles beyond Bagdad, quickly advanced up the Tigris and occupied Mosul. This was the first time they had seen the oil province. Clearly, from an oil point of view, the Entente Cordiale had an ascending value in the East, however diminishing in political value in the West.

Moreover, France was, next to Britain, the best market in Europe for the surplus products of the Anglo-Persian Oil Company and the Royal Dutch-Shell. Were not conversations proceeding in London and in Paris between Sir Charles Greenway and Sir Basil Zaharoff, which were to lead to the formation of the "Société Générale de Huiles de Pétrole," now advertised by the Anglo-Persian Oil Company

as their "French subsidiary"? In any case, whether it was France across the Channel that was an indispensable outlet for refined oil from Llandarcy, or France in Syria that was an indispensable outlet for crude oil from Mosul, or French claims on Mosul that were a mere nuisance, it was eminently desirable to effect a fresh orientation of the Entente Cordiale.

Yet who in the five continents would have dreamed that this commercialised diplomacy would take shape in such a document as the San Remo Oil Agreement, signed on 24th April, 1920, by Sir John Cadman and M. Philippe Berthelot and afterwards countersigned by the British and French Prime Ministers? The text of this perplexing Agreement is given in an appendix, and, being short, may conveniently be studied. It has been subject to the most widely different interpretations. One prominent view, propounded by certain interests in France, is that it sold what little oil wealth France possessed into the greedy hands of Great Britain. An imaginative account has been given,[1] for example, of how the Royal Dutch on the 23rd March, 1919, at the moment when the economic clauses of the Treaty were being discussed at Versailles, addressed a communication to the Clemenceau Cabinet in which it declared itself "willing to co-operate with the plans of the French Government in whatever concerns the management and exploitation of the various oil interests which might be

[1] Francis Delaisi, *Le Pétrole.*

reserved to France as a consequence of the Peace Treaty." Discussions followed with the Royal Dutch, it is said, which formed the basis of the San Remo Agreement. In the words of this romanticist: "Curzon said: 'Sign the Agreement with the Royal Dutch and you shall have Syria.' M. Millerand accepted. Immediately, Feisul was left to himself. Thus the triumphal entry of General Gouraud into Damascus was paid for by the abandonment of all our oil resources." There is, of course, a little too much anti-Royal Dutch bias in this coloured version of the San Remo Agreement not to cause one to suspect the hand of Standard Oil. But wherever anti-British feelings were being nurtured, whether by journalist or by politician or by oil-refiners, this interpretation of the Agreement as an act of betrayal of impoverished France, or of the commercial duplicity of the "nation of shop-keepers," was eagerly and vociferously adopted.

Then there is the American version, equally coloured, and equally untrue. How the American regarded the San Remo Agreement, after reading the typical French denunciation of it, may best be expressed in the form of an imaginary colloquy, between the two signatories, as follows:—

Sir John Cadman: With regard to Roumania, it is highly proper that we should support each other in any oil negotiations, and so save Europe for the Europeans.

Monsieur Berthelot: Naturally I appreciate that

you do not want Standard Oil or any other prodigy of America to participate?

Sir John Cadman: Quite. Now with regard to this unfortunate Russian Empire. You will give your support to efforts made by the Royal Dutch-Shell and other British interests to "*obtain* petroleum concessions and facilities to export." We will do likewise for French interests, but of course you have no French-managed companies actually operating in the Russian fields?

Monsieur Berthelot: That is so. And shall we be invited to share equally in any concessions secured by Royal Dutch-Shell or other British interests from the Soviet Government?

Sir John Cadman: I think we will pass on to Mesopotamia, where you can have a tangible advantage. If our Anglo-Persian friends exploit that country you shall have 25 % of the oil at market prices. Of course, as we should have a monopoly, there would be no market rate, but we could fix one for you. If, however, the oil is to be exploited by a private company—I mean the Turkish Petroleum Company—naturally this would be under permanent British control, but you shall have the shares formerly held by the Germans and now confiscated, provided always that you will give every facility for our laying a couple of pipelines from Mesopotamia or Persia through your mandated territory, without import duties on materials, or dues on oil, or way-leaves, or export taxes, and provided you will give your official support for the

acquisition of land which we shall want for the erection of depots, railways, refineries, loading wharves, etc.

Monsieur Berthelot : Certainly; I am indeed glad that the expenses of Gouraud's army of occupation have not been mere waste from everybody's point of view.

Sir John Cadman : About your colonies, protectorates, zones of influence, or whatever you have—I include Algeria, Tunis and Morocco—you will give favoured treatment, I understand, to any Franco-British groups "of good standing."

Monsieur Berthelot : You mean that we must not let in American companies on an equality?

Sir John Cadman : I think we are always in perfect agreement. Now with regard to British Crown Colonies: we will give you the same facilities as you give us as far as we can. Of course I am rather afraid that existing regulations do not allow much. In fact, my dear sir, the door is closed to the foreigner in our Crown colonies and can't very well be opened now, because if we let you in, we should have to let in the American and goodness knows whom. Do you think we need leave this last clause in the agreement? I can't see it confers any benefit upon you, and it may set our American friends talking about their blessed "open-door."

Monsieur Berthelot : I would leave it in, cher monsieur. It makes the text read most reciprocal, most amicable.

Sir John Cadman: Yes, I forgot. The Entente Cordiale.

A literal reading of the text might support much of this Franco-American interpretation of the San Remo Agreement. Yet the real facts are very different. We have already suggested why Great Britain had a reason to come to some understanding with her Ally over the Near Eastern oil question. But the truth is that France was the first to make overtures, and that M. Berthelot lost nothing in his bargaining with Sir John Cadman. We point to the perspicuous fact that France had no right whatever to receive the German 25 % interest in the Turkish Petroleum Company. It was British forces that defeated Turkey in the war, and if Great Britain felt charitable in the peace, she might have handed this 25 % enemy interest to all her Allies together, including the United States. But why should France alone receive the spoil? Could her shadowy claims over Mosul justify so valuable a bribe? No doubt M. Berthelot argued that they did, and more. Sir John Cadman, listening through his interpreter, may have felt real concern about the pipeline through the French mandated territory, and may have consoled himself with the thought that the exchange to which he was agreeing did not mean giving up anything that was British before the war. Possibly the Royal Dutch interests, who had certainly negotiated with the French Government on the lines of their alleged letter, put M. Berthelot up to the deal. If Royal Dutch secured

the management of the 25 % interest conceded to the French, Sir Henri Deterding would have half the control of the Turkish Petroleum Company for which he had always hankered. In any case, the outstanding advantage of the Agreement accrued to France rather than to England, for she was assured of a quarter of the oil supplies of Mesopotamia, to which she had no previous claim. The rest of the clauses can only be regarded as dressing the window. They amounted to nothing in practice, but they made the text read pleasantly, and gave an impression of Allied solidarity. But did Sir John Cadman and Mr. Lloyd George ever appreciate to what extent the Agreement lent itself to the propaganda of Standard Oil? It is hard to deny the claim that, having admitted France, alone of our partners in the war, into the Mesopotamia oil monopoly, we were in effect slamming that door in the face of America. Commercial diplomacy of the San Remo character can quickly overreach itself.

CHAPTER VII

BRITISH FALLACIES

One need not be a naval expert or even a retired Admiral to see that, from the point of view of national defence, the Government's policy of owning or controlling the source of its oil supplies is entirely unnecessary. The Admiralty had fallen into the egregious fallacy that command of oil production was essential for command of the seas. That is the truth turned upside down. The axiom on which they might have proceeded is that command of the seas is essential for command of oil production. And the British, having the first, need not have worried about the second. It should have been self-evident that, in time of war, control of the sea routes makes every oilfield in the world a potential source of supply.

Let us address a few questions to Mr. Churchill and at the same time—to spare him trouble—suggest the proper answers. Was it the fact that the British Government held a majority control of the Anglo-Persian Oil Company that enabled Persian oil to fuel (in part) the Grand Fleet at Scapa Flow? By no means. It was because the British Navy guaranteed a comparatively safe voyage for an oil-

tanker from the Persian Gulf to British waters. How would it have profited Great Britain to own the majority stock of the Anglo-Persian Oil Company, if its Navy had been driven from the seas? Stock control is really beside the mark. Did not the successful development of the Roumanian oilfields by the Germans in 1917–18, even after their partial destruction by the Allies, illustrate the truism that commercial control of oil production in peace time, without military or naval command in war, is futile? If the Anglo-Persian Oil Company had been controlled by Germans, or had been from first to last German, would not the British Navy have had Persian oil just the same? Undoubtedly it would. Lord Fisher would have had some beautiful plan, lying already prepared in his desk, for holding the mouth of the Shatt-al-Arab, seizing the island of Abadan with its refinery, and rushing troops on monitors up part of the river Karun. The existing wells might have been destroyed, as the Roumanian were, but new ones could have been drilled. Indeed, Lord Fisher was abundantly clear on this obvious point of naval principle. What mattered, he reiterated, was command of the seas. That entailed, of course, a fairly large stock of fuel oil in storage tanks in the home country, say twelve or more months' supply, whatever is considered sufficient to start a war on. But, with that measure of preparedness, command of the seas would do the rest, would enable the Navy to seize any oil-tanker afloat on the ocean, or to secure the exported produce

of any oilfield in the world. That, as far as one can see, was the original policy of Lord Fisher. It was certainly the only policy of common sense. Indeed security of oil supply depends upon command of the sea for every big Power except America, whose oil supply is home-produced. Would not Mr. Churchill now agree that the policy of the British Government's control of the Anglo-Persian Oil Company's production was for the national defence unnecessary? He will, in any case, remember that it was not so much Persian oil that kept the British Fleet steaming, as American and Mexican.

Let us, however, be circumspect. Is there any other point of view from which the State control of an oil-producing company could conceivably be justified? It may be argued that it is a wise Governmental policy to encourage and support British investment in oil production in peace, if only on the ground that there would be more oil to confiscate in war. But this policy the British Government has never pursued. The considerable investment of British capital in the oil industry was due to private enterprise and a little love of speculation. The British Cabinet, for example, did not say a word to cheer, or stir a finger to help, Lord Cowdray in the oil conquest of Mexico. It is said that while he was reconstructing a Mexican State railway in the Isthmus of Tehuantepec he was struck by the sight and smell of a number of oil seepages near to the track, and resolved there and

then to try his hand at the fascinating chances of the oil game. Nor did the British Government suggest to Sir Marcus Samuel, when trading in the East, that he might take up oil transport as a side-venture, or encourage him next to enter the oil-production business in the Dutch East Indies. These are the two greatest successes of British enterprise in oil. The British Government fostered neither. How many more instances of individual adventure tell the same tale of Government indifference? Alfred Suart, the first Englishman to order a British-built oil-tanker, drilled the discovery well in the Grosny field in Russia, and, as his gusher inundated adjoining properties, became a poor man after paying the compensation due. William Keswick, partner in an East Indian House,[1] was the pioneer in Peru, and another London merchant house [2] has carried on the work of development there and in Ecuador. Yet another [3] is trying to bring the island of Barbadoes into commercial production. Nor must one forget the bull-dog tenacity of Sir John Cargill and his brother Scots who, undismayed by early failures, hung on and made the Burmah Oil Company a success. True, it was due partly to Government intervention that the Burmah Oil Company and the late Lord Strathcona took up D'Arcy's Persian concession: but the Government had done nothing to help in obtaining the

[1] Messrs. Mathesons.

[2] Messrs. Balfour, Williamson & Company.

[3] Messrs. Andrew Weir & Company.

concession or in making the all-important preliminary exploration.

Again it may be argued that without the Government control of the Anglo-Persian Oil Company the prolific oilfields of Persia would never have been developed. To that there are two answers. In the first, the State could have given financial assistance without taking shares in the Company, and if it had acted thus, the commercial development would probably have been more rapid. In the second, it could have rendered as much political or military or naval support as it liked without becoming senior partner. That is particularly obvious in time of war. Before the declaration of war in 1914 the Government of India sent a brigade to the Bahrain Islands (British soil) in the Persian Gulf, which, on the declaration of war, pushed up the Shatt-el-Arab and protected the Abadan refinery. Then a Division (the 12th) under Major-General Sir George Gorringe held the pipe-line and drove the Turks out of Persia.[1] Would not the Government have done likewise if the Anglo-Persian Oil Company had been a privately-owned concern? Always assuming that Persian oil was essential for its war supplies and that the Turks were endangering the pipe-line, would it not have done likewise even if Standard Oil had been the senior partner? And

[1] An account of the advance of the 12th Division was given by Sir Percy Sykes, in a paper read before the Royal Geographical Society on April 18th, 1921 (*R.G.S. Journal*, Vol. LVIII, No. 2).

as regards diplomatic dealings with the Persian Government, one cannot help feeling confident that the Anglo-Persian Oil Company would get on much better if Sir Charles Greenway were unhampered by the red-tape or majesty of the Foreign Office.

The latter state of this mistaken policy was much worse than the first. The war, in accentuating the importance of oil supplies, deepened the roots of the fallacy, now firmly planted in the official mind, that command of the sea routes depended upon control of oil production. Indeed the plant grew and blossomed into wonderful flowers of extravagance and folly. To anglicise the Royal Dutch-Shell at a time when that concern was carrying on an offensive in the home fields of the United States to the utmost consternation of certain Senators, to allow the Anglo-Persian Oil Company to compete with Standard Oil in the oilfields of Europe and South America, not to mention the world's markets, at a time when Standard Oil was suffering from an attack of nerves, and then to publish abroad from San Remo a manifesto dividing up the oil booty of the war to the apparent exclusion of American interests, was surely calculated to create the impression among good citizens of the United States that Great Britain was plotting and working to secure domination of the world's oil. Yet, the more one studies Mr. Lloyd George's system of administration, the more one is convinced that no such idea ever entered into the policy of the British Government. There is no evidence of any *con-*

certed British plan to line up the oil interests of the Entente against the commercial interests of the United States, to wrest the oil trade of the world from the hands of American exporters, to aspire to an oil hegemony. It was only the Admiralty school that wanted to make sure of the Royal Dutch-Shell and to enlarge the production of the Anglo-Persian Oil Company, and it was only French opportunism which initiated the discussions leading to San Remo. The fact that in all this oil history the British Government acted carelessly and made diplomatic *faux pas*, is surely proof that no deeply-thought-out Machiavellian scheme could have been meditated.

Indeed, these oil affairs are probably a reflex of the haphazard government by the direct, but uncoordinated, actions of Mr. Lloyd George. Advised by an oil secretariat without Foreign Office sensibilities, Mr. Lloyd George blundered in ignorance. Where is there a sign of that concerted British oil plot so dear to the heart of the imaginative propagandist? Lord Curzon, we have it on his own authority, was never consulted. Indeed, he has declared that in all his long association with the foreign affairs of his country he has never spoken to an oil magnate. Lord Cowdray had a political quarrel with Mr. Lloyd George. Sir Henri Deterding appeared before a Committee, not before the Cabinet, and did not appear again. Lord Inverforth, the then Minister of Supply, had interests in oil but was never responsible for the Petroleum

Executive, and in any case his influence would not have counted in the direction of Admiralty participation in the oil business, which was a practice he detested. When, later on, he organised a bunkering company for British shipping interests, he did not make a partnership with the Anglo-Persian Oil Company, or any other British concern, but one with an American oil company operating in Mexico. One is therefore left with Sir John Cadman, who was worsted by M. Berthelot in the game of diplomacy, and the Prime Minister and his Secretariat, who certainly knew nothing of oil affairs but what Sir John Cadman told them. Is this the organisation for the co-ordinated planning of an oil offensive against the United States? The idea is absurd. The original mistake of participation in the oil business to which the Admiralty had committed the Government had merely led to other mistakes of a more extravagant kind in the fine frenzy of Mr. Lloyd George's dictatorship.

However circumspectly one views the question, it seems impossible to avoid the conclusion that the State policy of stock control of an oil company was unnecessary. Mr. Churchill may claim that the State has gained millions on its investment—in dividends and capital appreciation. But a State mal-practice cannot be excused by showing profits in cash and shares. It is not the business of the State to speculate in oil or any other industrial stock. As for the plea of security of supply, is it not the fact that British capital, without any

encouragement from the State, developed, in the natural course of individual enterprise, control of oil supplies so well distributed geographically that the danger of total isolation in the event of war would be unlikely? The relative oil yield of the United States and the British Empire may be about 32 to 1, but there is hardly an oilfield in any country of the world where British companies are not working. With command of the seas, what more could be desired? How unnecessary for the national defence is this policy of State participation in an oil-producing company! How harmful, will appear as the later history is told.

PART II

THE OIL POLICY OF THE UNITED STATES

F

CHAPTER VIII

THE AMERICAN "VIEWPOINT"

Barrels of oil produced daily (1922 average) . .	1,510,129[1]
Barrels of oil imported daily (1922 average) . .	363,400
Barrels of oil consumed daily (1922 average) . .	1,311,029
Barrels of oil exported daily (including bunkers) (1922 average)	286,695
Barrel capacity of refineries daily	1,880,000
Miles of oil pipeline	45,500
Railroad tank cars	137,000
Automobiles (1923 estimate)	12,000,000

Do figures fail to give you a sensible idea of the place of the oil industry in the national consciousness of America? Travel but a little in the country and you will gain the impression that the modernism of the United States flowed from its oil wells. Outwardly, oil occupies there the place which coal occupies in Great Britain. The oilfield derrick is as familiar a landmark to the American as the pit-head wheels to the workers in our "black country." The oil-tank car is as ubiquitous on his railroads as the coal-truck on ours. The oil-tin litters his waste places. His wayside is dotted with the petrol-pump, and at night illuminated oil "filling stations" make his streets beautiful. A network of oil pipe-lines underlies his country, more extensive than the net-

[1] Production exceeded 2,000,000 barrels daily by June, 1923.

work of railways overlying ours. Chicago is pipe-linked with Texas, New York with Oklahoma. Imagine the smell of oil pervading the air of the oil-producing districts, men breathing it as men perforce breathe beer in Burton-on-Trent. Does not the American partly live in oil? Certainly he cannot move without it. Every tenth man owns an automobile, and the rest are saving up to buy one. It is no exaggeration to say that gasoline and Mr. Ford have revolutionised American social life. Without them, in a country of vast, dreary distances, the farmer's life would have been intolerable. The Ford tractor even now, according to its maker, is being sold at a loss to help the farmer become lord of the soil—and the purchaser of more Ford cars. But without the gasoline, and, what is equally important, the country-wide system of gasoline distribution, none of this would have been possible.

Whatever Scotsmen, who started the shale-oil industry, may say, the producing of "free" oil is primarily an American business, and its rapid development typical of American vitality. As an industry it was born in Pennsylvania in 1859, when an ex-railroad conductor, wearing a top-hat but using tools not fundamentally different from the cable-tools of to-day, drilled the first commercial oil well. In that year about 2000 barrels of crude oil were produced. Ten years later the annual production had mounted to 4,000,000 barrels, and has since roughly doubled itself every ten years. No other industry in America has equalled that productive

effort. At the moment of writing the output has reached the undreamed-of total of 2,000,000 barrels a day. Not only does the American oil industry produce about 65 % of the world's oil supplies, but it buys about 17 % of the remainder (hitherto, from Mexico) and, after satisfying its own needs, exports to the world's markets up to 58 % of their total requirements.[1] The United States is therefore, for all practical purposes, the world's oil merchant.

[1] *Of Oil imported by :—* *United States proportion is :*

Great Britain	49·5%
Canada	71·0
France	79·0
Argentina	23·0
Germany	64·5
China	75·0
Netherlands	49·0
British India	33·0
Brazil	32·0
Central America	23·0
Scandinavia	63·0
Chile	22·0
Italy	75·0
Other European Countries	57·0
Other African Countries	56·0
Australia	55·0
Other S. American Countries	26·0
French Africa	55·0
Belgium	78·0
Spain	50·0
British Africa	67·0
Mexico	97·0
Japan	53·0
New Zealand	91·0
Philippine Islands	73·0
All other Countries	60·0

These percentages are taken from a diagram prepared by the Department of Commerce, Washington, from official figures of United States exports of oil products (excepting solid products such as paraffin wax and greases) for 1921.

Yet for all that the American oil industry has not had a good Press or a particularly appreciative public at home. The reason is financial. It was not the public that made big money out of oil. Undoubtedly some dazzling individual fortunes have been won, but they are generally made, not by buying and selling the oil commodity, but by promoting companies, selling stock, and by buying lands as "wild-cat" and selling them as "proved oil-bearing." At the time of the great Texas strike of 1901, land in the newly proved field was sold at the rate of $100,000 an acre. In this way some of the oil millionaires are made. Moreover, the oil business unfortunately lends itself to the unscrupulous promoter, and the American public has suffered bitterly for its speculative sins. As we write this paragraph there are, in two towns of Texas, nearly 400 individuals indicted for fraudulent oil stock promotions. During the seven years period 1913–1920, according to one American economist, the actual capital absorbed into the oil industry to support its expansion was something like four to five billion dollars. As the money flowing out of the oil industry in the form of dividends during that same period was approximately one billion dollars, the net amount subscribed out of the pockets of the American investor was approximately three to four billion dollars. The man in the American street is probably putting more money into oil than he will ever see back. That is why the oil industry, despite its big place in the national life, has been, on the

whole, unpopular. It is perhaps natural that the American public will only uphold it when they think it is endangered or insulted by the British.

To a certain extent the war was responsible for a change of feeling. The national oil pride visibly swelled in 1918. The whole American nation was blissfully conscious that it had won the war for the Allies. Had it not supplied the oil on which they had "floated" to victory? Lord Curzon had told them so. "As in the case of many other commodities," he said, "the United States has been our one great source of supply, providing over 80 % of the Allied requirements of petroleum products." Generosity is often more appreciated by the giver than the receiver. With no little excuse, Americans felt generous. They had poured out their oil treasures with a liberal hand, at a not unreasonable price. Not only that, but they had stinted themselves in order to meet the Allies' needs. Mr. M. L. Requa, who was formerly director of the Oil Division of the United States Fuel Administration, told the American Petroleum Institute in 1920: "I shall never forget the response that came to us during the war period when we had our gasolineless Sunday order and we said, 'Won't you please refrain from using automobiles on Sunday?' And they did. Representatives of foreign Governments here told me that they were amazed to see that spirit, that they did not believe it possible in their own countries, and they did not understand how it was possible

here." With its generous instincts, the American public recognised after the war that even its oil companies had "made good." Had they not even consented to having all their tankers pooled? There may have been a little trouble about this, for M. Clemenceau had to mention it in his peremptory note of December 15th, 1917, to President Wilson, making it an "essential condition" that President Wilson "should obtain permanently from American oil companies tank steamers with a supplementary tonnage of 100,000 tons." "These tank steamers," he said, "exist. They are sailing at this moment in the Pacific instead of the Atlantic Ocean." Eventually they came, and some sank before they reached French ports. Finally, and to their greater credit, the oil companies had submitted voluntarily to the prices of their products being controlled. In the latter half of 1918 further advances were stopped.[1] The American consumer was not ungrateful for that. At the same time, public opinion in the United States was actually led to take a sympathetic interest in its oil resources. In other words, a national policy for oil emerged—not in the British fashion from the naval idea that oil supplies were essential for national defence, but in the American fashion from the mercantile idea that oil supplies were essential for national money-making.

[1] A plan of voluntary stabilisation was put into operation by the National Petroleum War Service Committee representing the oil industry, and the Oil Division of the United States Fuel Administration representing the Government.

Let us see how America began to dream, in fanciful adaptation of Lord Curzon's famous simile, of floating to victorious prosperity on a wave of oil. It was part and parcel of the idea that the American merchant marine, after the war, was going to capture the world's carrying trade. It will be remembered that during the war the United States had added billions of dollars to the National Debt by building a new merchant fleet completed just in time for the outbreak of peace. The American Government began to build still more ships. By January 1st, 1920, it owned 1,465 vessels with a gross tonnage of 5,840,742 tons. By June 1921 it had increased the gross tonnage to 8,600,000 tons.[1] Now, as 75 % of the entire fleet was burning fuel oil in place of coal, compared with about 18 % for all foreign shipping (taking 1920 figures), it was confidently hoped that they would sail round the slower British, Dutch and

[1] The latest report issued by the American Bureau of Shipping gives the following record of United States tonnage on December 1st, 1922:

"In the Government-owned fleet there are 409 coal-burning vessels of 1,550,619 tons, and 957 oil burners of 5,126,750 tons, making a total of 1,366 ships, aggregating 6,677,369 tons.

"There are 542 steel ships, privately owned, of more than 1000 tons and burning coal, with a total of 1,879,041 tons. Oil-burners privately owned of the same class, 618 vessels of 3,509,606 tons, making a total of 1,160 vessels aggregating 5,388,647 tons.

"On the Great Lakes there are 435 vessels burning coal, aggregating 2,110,991 tons, and five oil burners totalling 5,200 tons. Grand Total: 2,966 vessels or 14,182,207 tons."

The British gross tonnage is about 22 million tons, and the world total about 65 million gross tons.

Japanese merchantmen and so capture the world's carrying trade. They had the oil, they had the ships, and by jingo they would get the goods to carry. The centre of the world's credit, which had passed from Amsterdam to London in the eighteenth century with the rise of the British merchant marine, was timed now to pass from London to New York with the rise of the American.

It was not the fault of the American people that this vision quickly faded. Nor was it the fault of the oil industry. It was due, first, to the world collapse of trade in 1921 and the fact that America is part of the world economic system; secondly, to the fact that the shipping business thrives under private enterprise and initiative, but perishes under bureaucratic control and inexperience (witness the failure of the Canadian and Australian Government shipping schemes); thirdly, to the fact that a very large proportion of the American war-built tonnage was in any case worthless from a freight-earning point of view. Nevertheless, the boom lasted long enough to stamp the national importance of oil supplies on the American memory, for the reason that, during a time of oil scarcity, the United States Government became a large buyer of fuel oil, and, like the British Admiralty, found itself embarked upon extensive oil operations.

The United States Shipping Board, the body constituted to administer this State-owned merchant marine, could certainly think in terms of oil if not

of shipping. For the year 1919 its total fuel-oil requirements were approximately 18,000,000 barrels (2,727,000 tons); for the year 1920 approximately 30,000,000 barrels (4,545,000 tons); for the year 1921 approximately 40,000,000 barrels (6,060,000 tons). To handle these enormous quantities it cheerfully committed itself to a large programme for building oil-tank storage—fuel-oil bunkering depots—throughout the world.[1] These bunkering stations were to serve United States Shipping Board steamers primarily, but oil surplus to their requirements was sold to steamers flying the American flag. And then the United States Shipping Board began to build Government oil-tank steamships to carry Government oil to Government-built oil-tank storage. Which was worse—the United States Shipping Board or Mr. Churchill? If relations with the Mexican Government had permitted, the Board would probably have gone into Mexico and built and operated its own topping (refinery) plants, as indeed it was urged to do.

The oil requirements of the American merchant marine were not easy to meet in the period of inflated demands. In the early months of 1920 the United

[1] In October 1919 their first foreign bunker oil station was completed at St. Thomas (Virgin Island). Others followed at Honolulu, Manila, Brest, Bizerta (Tunis), Ponta Delgada (Azores), while the Board contracted with Standard Oil and other companies for storage at Genoa, Savona, Hamburg, Colombo, Constantinople, Shanghai, Iquique, Rio de Janeiro, Sydney and Durban.

States Shipping Board had the greatest difficulty in getting bids for its tenders.[1] The problem which greatly exercised it was that of price. The Board was afraid of the market in America, and it was afraid of the price which foreign oil companies might impose on its ships in the East. So it felt obliged to carry oil from Mexico and from the United States to all parts of the world, simply because it was loth to pay the prices of the Anglo-Persian Oil Company or the Royal Dutch-Shell. Eventually, of course, it made contracts with these groups because it was still more expensive to carry American oil to Eastern waters. But with its fuel-oil bill, its capital expenditure on construction of tankers and tank storage, its running expense of operating the tankers and the tank depots, to capture the world's carrying trade must have seemed to the United States Shipping Board an expensive luxury. In fact, it cost the American nation about £600,000,000 sterling.[2]

In this way oil supplies and the oil industry became a national concern. As the then Chairman of the United States Shipping Board (Admiral Benson) later remarked before the American Petroleum Institute: "To compete in the world markets

[1] Apart from their fuel oil budget of over 4½ million tons in 1920 they had a lubricating oil budget of over 4 million gallons.

[2] The last Chairman of the Shipping Board declared that it was impossible to sell the major part of the Government ships into private ownership and recommended that the best of them should be worked by the State and the rest scrapped. Patriotism and the lessons of the war had no effect on business considerations when it came to bidding.

with our ships it is necessary to continue the development of oil for the application of fuel oil to our motive power. . . . It would be useless for us to try to compete with our foreign competitors by returning to coal." At the same time the American Navy Department had reacted to the 1920 " boom " in oil consumption by manifesting serious anxiety about the safety of oil supplies for the American Battle Fleet. Whether it was the merchant marine that was concerned at one moment or the Navy at another, a public sense of the national, as against the industrial, importance of oil supplies, had been acquired. Here was the excuse for an oil policy. It needed only a little propaganda to make the American people become more oil-minded than the oil men.

CHAPTER IX

STANDARD OIL

LET us digress for a time and consider the part played by Standard Oil. As the term is now popularly used without the definite article or description of the particular Standard Oil Company implied, it stands almost for a secret force, a penetrating influence. What a contrast from the human personality of Mr. John D. Rockefeller, its creator, is this inhuman, incorporeal personality of Standard Oil to-day! The multi-millionaire who could organise a private Education Board for philanthropic purposes and endow it (between 1902 and 1909) with $53,000,000, who has given over $182,000,000 in the last ten years to the Rockefeller Foundation, whose dollars fought the hookworm in the Southern States, is a man whom we would like to meet, a human being obviously distressed and bewildered by an overburden of wealth. But this present-day combination, governed by superlatively clever directors drawing incredible salaries that would turn the heads of princes, staffed by legions of ambitious, office-climbing officials ready to sacrifice friendship and soul on the altar of "Standard Oil," is become an inhuman galvanic force. It keeps its word, yet

is unmoral; it is always acquiring, yet is insatiable; it is unassailable, yet perpetually aggressive. For all that, it is a great American institution. Let us be sure that we understand its peculiar environment and history.

It goes without saying that in the American oil industry Standard Oil is the dominant force. The saying of the woman of Canaan that "the dogs eat of the crumbs which fall from their masters' table" aptly illustrates the domestic condition of the oil business. Substitute for "dogs" the words "Little Independents" and for "masters" the words "Big Combines," not forgetting that dogs also snatch morsels from the masters' table when the masters are not looking, and you have a picture of life in the oil business which is more or less true the world over. In the United States the masters are the Standard Oil companies, together with a few big "Independent" combinations, such as the Sinclair group (all non-Standard oil companies are called "Independents") and the Royal Dutch-Shell subsidiaries. Of these big combines, Standard Oil is foremost, holding the power of life and death over the little "Independents."

In 1911, as everyone knows, the Standard Oil Trust, which had early discovered the economic merits of an oil combination, was financially disintegrated by a judgment of the Supreme Court. The Standard Oil Company of New Jersey was thus forced to make a distribution of its holdings in thirty-three subsidiary companies, but still retained control

of twenty-nine.[1] What is more important, all of them continue to work in economic collusion, that is to say, trade with the same economic policy and transact business with each other in the same way as before the disintegration. A report issued by a New York Stock Exchange firm about a year later opened with these significant phrases: "There are three distinct features which characterise the Standard Oil Company as one of the strongest corporations in the world: first, the ingenious formation of the corporation by virtue of which it has unquestionably withstood the violent attacks of the United States Government in the enforcement of the Sherman Anti-Trust Law; second, the rare skill and proficiency constantly displayed by the organisation; . . . third, the natural co-ordination existing between the companies controlled by Standard Oil,

[1] The following comparison of the capitalisation of the Standard Oil Company of New Jersey, with that of the United States Steel Corporation shows that the former is rapidly approaching that of the famous steel combination.

	Standard Oil of New Jersey.* Dollars.	U.S. Steel Corporation. Dollars.
Common Stock—		
Authorised	625,000,000	550,000,000
Issued	500,000,000	508,302,500
Preferred (7 % Cum.)—		
Authorised	200,000,000	400,000,000
Issued	200,000,000	360,281,100
Total—		
Authorised	825,000,000	950,000,000
Issued	700,000,000	868,583,600
Bonded Debt (issued)—		
5 % 50 Year bonds		224,408,000
5 % Sinking Fund Bonds		174,326,000

* After giving effect to 400 % stock dividend.

prior to the decree of dissolution, . . . which renders inter-corporate relations, as regards competition, as effectual under present conditions as under those existing before the segregation." The United States Fuel Administration reported in 1919: "After eight years the dissolution decree has been found neither to have destroyed nor to have lessened the influence of the so-called Standard Oil companies in their respective territories. It has simply proved that legislation cannot change the operation of economic laws." In other words, you cannot unscramble eggs.

Of the crude oil output in the United States about 21·3 % is produced by the nine Standard Oil producing companies, 38·1 % by large Independent combines (of over a million barrels annual output), and 40·6 % by the little Independents. Of the total crude oil refined about 43·8 % is handled by Standard Oil companies, 41·1 % by large Independent combines, and 15·1 % by the little Independents. Of the pipe-lines 69 % is controlled by the Standard Oil companies, and nearly 30 % by the big Independent combines. And Standard Oil is the big marketer.

It is not necessary to quote Senator La Follette's sub-committee of the Senate Manufactures Committee, whose investigation into the oil industry has been accused of no little bile and bias, to show that Standard Oil is supreme in the American markets. It is the 69 % or more control of the common pipe-lines that gives Standard Oil its

strangle-hold of the smaller Independent companies. Although Congress imposed on the pipe-line companies the obligation of common carriers, most of the oil produced is purchased by the pipe-line companies at the producers' tanks or even at the wells. A small producer is thus at the mercy of the pipe-line carrier. Because prices must move to extremes when the storage tanks are full to overflowing, when tankers are laid up in harbours unable to discharge their cargoes and when the pipe-line companies refuse to accept more oil from the hundreds of small producers who lack storage accommodation, it is practically unsafe to operate in the oil business except on a large scale and in all its branches. For all these reasons, Standard Oil can dominate the oil markets of America and make life hardly worth living for the "Little Independent" operating in any single branch of the oil industry. How far it abuses its power by taking concerted and aggressive action to thwart and annihilate legitimate "independent" enterprise, is a domestic and moral affair on which we will not presume to express an opinion.

Naturally, Standard Oil publicly disclaims any thought of domination. Its subsidiaries even compete with one another to keep up the belief of disintegration. As evidence that the oil industry is free and that the most intense competition exists, Mr. Walter Teagle, President of the parent company, has pointed to the endless procession of new companies which have entered the oil business in the last ten years, financed chiefly by the sale of securi-

ties to the public. The total investment in the American oil industry has increased in that period, according to the word of Mr. Teagle, from $27,000,000 to nearly $8,000,000,000. This argument is plausible, but not so convincing on examination. If we apply the figures compiled by the Federal Trade Commission of the cost of investment per barrel produced to the crude oil turnover in 1922 in the United States, we arrive at the following calculation:

Estimate of Investment in American Oil Industry in 1922:

		Millions of Dollars
Production		3,250
Transportation	(a) Pipe lines	550
	(b) Tankers	300
Refining		2,400
Marketing		900
		7,400
Add investment of foreign holdings		600
	Total:	8,000

This calculation leads to interesting conclusions. In the field of production, in which more money can be sunk (and lost) than in any other branch of the oil industry, Standard Oil has cunningly allowed the "Independents" to enter and take about 80 % of the business. Fools rush in where angels fear to tread. One rarely finds Standard Oil "wildcatting." In refining, which calls for the next largest investment, Standard Oil has left 60 % of the business to "Independents." But the significant fact emerges that of the pipe-lines, which

require the smallest capital outlay, irrespective of their vast marketing organisation, Standard Oil has got control of nearly 70 %. With what ingenuity has Standard Oil allowed the "Independents," or the public through the "Independents," to put up the money, while it retains for itself control of the markets and makes the big profits? Last year, did not the Standard Oil Company (New Jersey) declare a stock dividend of 400 %, the Standard Oil Company of New York one of 200 % and the Standard Oil Company of California one of 100 %? There would seem to be a definite relationship between the fortunes so common to Standard Oil and the losses so common to the "Independents."

Apart from its domestic supremacy Standard Oil once held an international domination. It appears to be very sensitive of its now historical position. It had won the world's markets almost before its European rivals were born. Every development of the oil industry outside America was virtually an attack on Standard Oil positions. Indeed, it might be said that the rest of the world has been fighting Standard Oil for the oil business for a quarter of a century. From 1861, when the *Elizabeth Watts* brought the first cargo of oil from America to England (and incidentally caused a temporary slump in British oil prices), American oil began to penetrate into every corner of the consuming earth. In those days the horse-drawn wagon with a tank bore the legend "Finest American Lamp Oil" round most of the towns of Europe. There are

still some of these old wagons to be found on the road to remind us of the time when American lamp oil lighted the whole world, when it undersold the products of Baku in the interior of Russia and killed the local shale oil industry in Scotland. Standard Oil was the merchant. Standard Oil depots rose up in every foreign centre of consumption. Europe, the Near East, the Far East, Australia, as well as the Americas, were all girdled by their sales organisation. In the eighteen-nineties it could truly be said that the supply of the world's oil was the business of Standard Oil.

Hence the development of the oil industry in Russia, in the Dutch East Indies, in Mexico, was, from this point of view, a series of attacks on Standard Oil supremacy. The Nobel Brothers and the Rothschilds were the gentlemen who drove American kerosene out of Russia.[1] The Royal Dutch Company and Sir Marcus Samuel (with the help of the East Indian Government in 1898) kept Standard Oil out of the Dutch East Indies,[2] and began to undermine her position in the Eastern markets. Lord Cowdray's side-line enterprise in Mexico, by pushing a Standard Oil subsidiary out of the Mexican home markets, gave the great combine what has been described as "the best little shake-up it had ever had in its long life." Then the Royal Dutch-Shell

[1] Standard Oil has (potentially) come back by purchasing control of the Nobel business in 1920.

[2] The Royal Dutch now declare that the Koloniale Petroleum Company, which has a production in South Sumatra of about 400 tons a day, is a subsidiary of Standard Oil.

group began to penetrate even into the home fields of America and in 1917 had the audacity to amalgamate with Lord Cowdray's Mexican Eagle Oil Company. Finally, the Anglo-Persian Oil Company reared its head in Persia and Mesopotamia with the crown of monopoly on its brow. All these sturdy infants were bound sooner or later to clash with the old man Standard Oil. Were they not all the victims of blind economic forces? While Standard Oil had originally been pushed abroad to find markets for the ever-increasing American production, it is now being pushed into foreign fields to find reserve sources of production. It is reacting to the economic necessity of acquiring reserve assets to counterbalance wasting assets, and of distributing the sources of supply the more economically to meet its widely distributed markets. Unfortunately, it meets the Royal Dutch-Shell combination doing exactly the same thing. The Chairman of the Royal Dutch Company once remarked at a shareholders' meeting: "The importance of our oil grounds in the Dutch East Indies . . . is continually decreasing. . . . We have there no reserve grounds. . . . Therefore we had to employ our capital, organisation and energy elsewhere. . . . Everywhere in the world our geologists are at work for the extension of our oil grounds." Indeed, wherever Standard Oil goes about seeking reserve sources of supply in foreign countries, it finds the drilling tackle of more and more rival companies planted in the fields and a strange tendency on the part of foreign Governments to

grant concessions to anyone rather than to the American " octopus."

The Standard Oil combination is still the biggest oil dealer in the world. Its annual turnover is about 30,000,000 tons as compared with the 8–9,000,000 tons (16,000,000 tons estimated as the present rate) of the Royal Dutch-Shell and the 3–4,000,000 tons of the Anglo-Persian Oil Company. But these successive attacks on its monumentalism, and the intensive campaign which its two greatest rivals are carrying on in the European and Eastern markets, have undoubtedly made its leaders sensitive of their position.

Far be it from us to suggest that the American public (not to mention the little " Independents ") was seriously disturbed by these raids on Standard Oil entrenchments. It was more concerned with its domestic business than with the foreign business of Standard Oil. Not so very long ago, whenever a newspaper of the baser sort was short of copy, the editor passed the word : " Oh ! swat Standard Oil ! It's got no friends." The 1908 scandal, when a Senator had been found to be receiving in his public duties money and suggestions from the President of Standard Oil, was not quickly lived down. But times change. The public is now beginning to appreciate that Standard Oil is a great American asset, that it carries the American flag into foreign waters more often than any other private enterprise, and that it has helped to build up modern American industrialism. Nor is it to be overlooked that the

Standard Oil Co. (New Jersey) is actually beginning to take the public more into partnership. It has now 60,000 names on its share register.

Finally, it is useful to remember that Standard Oil had always a few friends. They were carefully chosen, and curiously enough they all had houses in Washington. Rather than say anything distasteful of the Secretary of State's office, or any other branch of Standard Oil, let us quote only an American's opinion. In "The Life and Letters of Walter H. Page" is given an account of an interview between Sir William Tyrrell, then Secretary to Sir Edward Grey, and Mr. Secretary W. J. Bryan, which is illuminating :

> "The Secretary harangued Sir William on the wickedness of the British Empire, particularly in Egypt and India and in Mexico. The British oil men, Mr. Bryan declared, were nothing but the 'paymasters' of the British Cabinet.
>
> "'You are wrong,' replied the Englishman, who saw that the only thing to do on an occasion of this kind was to refuse to take the Secretary seriously. 'Lord Cowdray hasn't money enough. Through a long experience with corruption the Cabinet has grown so greedy that Cowdray hasn't the money necessary to reach their price.'
>
> "'Ah,' said Mr. Bryan, triumphantly, accepting Sir William's bantering answer as made in all seriousness. 'Then you admit the charge.'
>
> "From this he proceeded to denounce Great Britain in still more unmeasured terms. The

British, he declared, had only one interest in Mexico, and that was oil. The Foreign Office had simply handed its Mexican policy over to the 'oil barons' for predatory purposes.

"'That's just what the Standard Oil people told me in New York,' the British diplomat replied. 'Mr. Secretary, you are talking just like a Standard Oil man. The ideas that you hold are the ones which Standard Oil is disseminating. You are pursuing the policy which they have decided on. Without knowing it you are promoting the interest of Standard Oil.'"

In point of fact, a national interest in or anxiety about the supply of oil was all that was needed to give the United States a foreign policy in oil identical with the policy of Standard Oil. That, as we have seen, emerged after the Armistice from natural mercantile ambitions. The Secretary of State and the President of Standard Oil were soon to be found pulling together with a will!

CHAPTER X

THE SHORTAGE SCARE AND THE CLOSED DOOR

THE awakening of the American public mind to the national importance of the future supply of oil was not allowed, in that country of exacting pressmen, to remain like the beautiful and natural awakening of the Sleeping Princess. The necessary "boost" to the movement was supplied by two journalistic "stunts," the "stunt" of the approaching end of the domestic oilfields and the "stunt" of the British capture of the foreign oil reserves. If the Press campaign had been alone, one would merely have suspected commercial propaganda, but seeing that it was led by bugle calls from Government quarters, one can be almost certain that the single inspiration was Standard Oil.

There is this strange habit peculiar to the American oil industry which one should observe in passing. Although it doubles its output roughly every ten years, yet it declares every other year that its peak of production has been passed and that its oilfields are well nigh exhausted. It is always being given out that more than half the total production is derived from a small fraction of the total number of producing wells, that the flush-production of this

fraction cannot last much longer, and that new pools can only be discovered in certain restricted areas. Nevertheless new pools are continually being tapped, new fields opened up, new flush-producing wells brought in to replace those declining,[1] and each year the total output turns out to be surprisingly greater than the year before. One cannot doubt that the lugubrious prophecies of American oil men are in some way related to the wish for higher prices. But it is wonderful to observe that in the firmament of oil, the Mexican comet is already on the wane, while the American star is still increasing in magnitude.

We do not say that these " stunts " had no element of truth. Indeed, it was the small element of truth in them that probably accounted for their wide success. There was, on the one hand, good reason to believe that the oil resources of America were being exhausted more rapidly than need be by waste in the methods of production, waste in the methods of handling, waste in the methods of consumption. Sir Edward Mackay Edgar had already made public his candid opinion that " the Americans have dealt with their resources . . . in the pioneer spirit of sheer unmitigated pillage, that they had recklessly squandered, and in sixty years run through a legacy, which, properly conserved, should

[1] For example, the Mexia (Texas) field began the year 1922 with a daily output of 140,000 barrels and ended with one of 80,000 barrels, but the flush producing pools in California (Santa Fé Springs, Signal Hill, and Huntingdon Beach) much more than made up for that decline.

have lasted her for at least a century and a half."
Perhaps a more rapier-like thrust would have gone home equally well. There was certainly truth in making known that American fields, like all others, were not inexhaustible. Then, on the other hand, there was some reason to question the oil policy of a British Government that was openly maintaining an oil administration and adviser, and controlling an oil company that was showing liveliness in foreign fields. A British financier had actually proclaimed that "just when the point has been reached that 'oil is King' the United States finds her chief source of domestic supply beginning to dry up and a time approaching when instead of ruling the oil market of the world she will have to compete with other countries for her share of the crude product . . . only to find, almost wherever they turn, that British enterprise has been before them and that the control of all the most promising properties is in British hands."[1] Responsible geologists declared that the United States, which had territorial command of two-thirds of the world's actual production, held political control over only one-eighth of the world's resources.

In any event these two parallel ideas of exhaustion at home and a boycott abroad had sufficient particles of truth to set Press and Government officials talking. Were they unconsciously or consciously doing the work of Standard Oil? We do not presume to decide. One knows that there are

[1] Sir Edward Mackay Edgar in *Sperling's Journal*, 1919.

literary artists in America, as in England, who disseminate news through the general Press at the instance of clients who can afford to pay their fees. One knows that powerful commercial interests can bombard a Government office and influence a weak or sympathetic Government's policy. For our part, we do not believe in preaching the "hidden hand" of the oil interest. One finds more often than not that the hand is openly disclosed without even its customary glove. And in this instance is not the hand of Standard Oil plainly discernible? Let us tell the story.

Some advance notice of the American Government's adoption of the "domestic shortage" scare, with its corollary of the "open door," was given in various official and semi-official publications.[1] The idea that America had exhausted her oil resources in supplying the world before the war, and the Allies during the war, and was now to be barred from the oil reserves in foreign countries made an instant appeal to the anti-British or sensational

[1] Lane, Franklin K., Annual Report of the Secretary of the Interior for the Fiscal Year June 30th, 1919. (Republished as U.S. Geological Survey Bulletin 705.)

Smith, George Otis, a Director of the U.S. Geological Survey. "A Foreign Oil Supply for the United States." (Transactions American Institute of Mining and Metallurgical Engineers, February 1920.)

Smith, George Otis, "Where the World gets its Oil" (*National Geographic Magazine*, February 1920).

Manning, Van H., a Director of the United States Bureau of Mines. "International Aspects of the Petroleum Industry" (Transactions American Institute of Mining and Metallurgical Engineers, February 1920).

newspapers. To have to pay the foreigner's price after making the foreigner pay the American price for so long was more than a patriot could speak of without an emotional shake in his voice, and, indeed, was more than Wall Street could contemplate without a panic. The prophecy that the United States within a few years would be paying Britishers an annual oil bill of a billion dollars, was solemnly read before the Senate House. Grey-haired members were roused for the first time to the possibility that they might not die (politically) before that calamity. The more ardent "glimpsed" the possibility of intervention in Mexico or the Near East, or a war on England. Mr. Fall must have seen the dreadful vision of Royal Dutch-Shell, with its foreign sources of supply, holding up the American nation, and American oil companies tumbling into liquidation. He did not hesitate to bring against the British Government the charge of double-dealing. The result was that in March 1920 the Senate passed a Resolution (331 of March 12th) [1] requesting information *inter alia* (1) As to what restrictions if any are imposed either directly or indirectly by France, Great Britain, Holland, Japan or any other foreign

[1] In referring to this Senate resolution of March 1920, M. Delaisi in his *Le Pétrole* went on to make the amusing statement: " Some days later . . . the reply came from London, precise, brutal, arrogantly impertinent and ironic. In Lord Northcliffe's *Times* Sir E. Mackay Edgar, Bart. . . . flung this challenge." In point of fact this article by Sir E. Mackay Edgar was written in *Sperling's Journal* of *September* 1919. This is only one of many inaccuracies in M. Delaisi's journalism. The story is just as good if told accurately.

country . . . upon citizens of the United States in the matter of prospecting for petroleum or in the acquisition and development of land containing the same . . . and (2) if such restrictions exist, what steps have been taken by the Government of the United States to secure their removal and equality of treatment in respect of citizens of the United States."

It was an appropriate prelude to the report on this Resolution for the Geological Survey to have published, on May 2nd, 1920, a statistical memorandum giving a picture in striking perspective something like this :—

> American oil consumption 400 million barrels a year.
> Foreign Countries' oil consumption 200 million barrels a year.
> Reserve Supply for America = 18 years.
> Reserve Supply for Foreigners = 250 years.
> Horizon—very black.

Hypothetical statistics of this sort are of course an abomination to the prudent : but they served the purpose of the moment, which was to rouse national emotion. Then, with what splendid effect did the Acting Secretary of State transmit (on May 17th) the reply to the Senate Resolution declaring :—

> "The policy of the British Empire is reported to be to bring about the exclusion of aliens from the control of the petroleum supplies of

the Empire and to endeavour to secure some measure of control over oil properties in foreign countries. This policy appears to be developing along the following lines, which are directly or indirectly restrictive on citizens of the United States (*a*) by debarring foreigners . . . from owning or operating oil-producing properties in the British Isles, Colonies and protectorates,[1] (*b*) by direct participation in ownership and control of petroleum companies, (*c*) by arrangements to prevent British oil companies from selling their properties to foreign-owned or controlled companies, and (*d*) by Orders in Council which prohibit the transfer of shares to other than British subjects or nationals."

This report was, of course, inaccurate in places and generally misleading. But as an expression of popular prejudice it was exact. From what source did the Department of State draw its information? Did it examine Standard Oil officials? It certainly reads like a reprint from *The Lamp*. But no defender of the truth or Great Britain was at hand. The "100 per cent." American had the floor. Such a one we imagine to be Senator Phelan, representing the oil state of California, who stoutly demanded the incorporation of a State Oil Corporation—on the lines of the State Shipping Board—for the purpose of exploiting oil in foreign countries!

[1] The report argued that aliens were either debarred absolutely from or subject to restrictive regulations in British India, Burmah, Trinidad, Barbadoes, British East Africa, Uganda, British West Africa, British Guiana. The only exception was British North Borneo, where Royal Dutch-Shell had the lead.

In this explosive atmosphere the United States received the news of the San Remo Agreement. Every patriot jumped to the conclusion that the alarmists had been right, that the oil propaganda had been truthful, and that Great Britain had really banged the door in America's face. Popular prejudice was kindled. There was really no need for Standard Oil to do anything but watch it blaze. The Press behaved nobly, and several public men obliged by coming forward. Dr. David White of the Geological Survey predicted the passing of the peak in domestic oil production in five to three years' time,[1] and complete exhaustion in eighteen years,[2] and put up the foreign oil reserves to 300 years. Mr. Requa delivered himself of a paper informing the public, which was now ready to believe anything, that the British Government held a 40 % holding in the Royal Dutch-Shell ("the present whereabouts of these shares," he naïvely remarked, "is somewhat of a mystery"!), and calling for "the same enthusiastic Government support and co-operation for American oil companies as the British Government accorded its

[1] In 1922 the United States produced more oil than Dr. David White said that it ever would or could produce in one year. And 1923 will beat it easily.

[2] A Joint Committee composed of representatives of the United States Geological Survey and the American Association of Petroleum Geologists early in 1922 declared that American supplies would last only 20 years. On the other hand, by way of counterblast, a professor (Marle Wilson), late of the United States Geological Survey, produced arguments to prove that supplies should last 50 years. So the fun goes on.

nationals, so that they could form a powerful combination to deliver fuel oil not only to American ships, but to the ships of the world at any port at which they may call."

It must be admitted that the two "stunts"—of the exhaustion at home[1] and the "closed door" abroad—had been timed precisely, had worked splendidly, and had reached an obviously successful conclusion. American oil policy now developed into a national defensive or offensive for certain of its oil interests. The Government took up diplomatic arms against Great Britain—necessarily in defence of Standard Oil. There was a remarkable coincidence in the national and commercial interests. As Sir W. Tyrrell remarked, Washington officials began to think, talk and write like Standard Oil officials.

[1] Mr. J. E. Pogue, in his able *Economics of Petroleum*, published in 1921, gave two elaborate figures of the petroleum produced in the United States by different fields, one for the period 1913 to 1920, the other for the period 1890 to 1920, and concluded in the following words: " . . . (These figures) indicate that production in the United States is fast approaching its limit, and there is much evidence to suggest that 1921 will register the maximum rate of output that this country will enjoy" (p. 57). Happily Mr. Pogue has lived to read the increased production figures of 1922 and witness his own discomfiture. Yet Mr. Pogue was no propagandist, but the most careful student of economics, albeit a consulting engineer. "This deduction," he added, "is based upon a study of production curves; that is to say, is the result of mathematical analysis, and is not predicted upon estimates of the size of the unmined supply." If mathematical analysis can do no better, what shall we say of mere propaganda guesswork?

CHAPTER XI

THE DIPLOMATIC LISTS—PRESIDENT WILSON'S ROUND

May 12th, 1920. Mr. Davis, United States Ambassador at the Court of St. James's, to Earl Curzon, Secretary of State for Foreign Affairs (a first charge).
July 28th, 1920. Mr. Davis to Earl Curzon (a parting fling)
August 9th, 1920. Earl Curzon to Mr. Davis (a spirited defence).
November 20th, 1920. Mr. Bainbridge Colby, Secretary of State of the United States of America, to Earl Curzon (a second charge with fresh horses).
February 28th, 1921. Earl Curzon to Mr. Davis (a hand-to-hand encounter).[1]

Stakes: The Oilfields of the Middle East.

It cannot be said that, when oilfields became the stakes in the diplomatic lists, there was any improvement in the conduct of fighting. On the contrary, there was some deterioration. The weapons were not always fair or the tactics sporting. There was a good deal of stabbing in the back. Is this not a confession of the kind of school that had trained the protagonists for the fight? Is it not to be expected that when a national policy is dictated by the policy of commercial interests

[1] Correspondence between His Majesty's Government and the United States Ambassador respecting Economic Rights in Mandated Territories (Cd. Paper 1226, 1921).

its expression gets lowered to the commercial level? Nevertheless, there was some pretty skirmishing. One feels, on the whole, that Lord Curzon knew how to use his dialectic weapons more skilfully, while Mr. Bainbridge Colby had the greater weight behind some of his mal-directed blows. The result was inconclusive. Both sides had to give way at certain points, and both resolved to fight again. But the supporters of Mr. Colby were not altogether pleased with his performance, and later on it so happened that he was forced to retire in favour of another champion of the American cause.

Let us note the incidents in this diplomatic controversy which throw some light on the commercial activities behind. Mr. Davis's first Note referred to the unfortunate "impression in the minds of the American public" that Great Britain had been "preparing quietly" for an oil monopoly in Mesopotamia as part of her "general oil policy." Is it not the use of such journalistic phrases as "preparing quietly" and "general oil policy" in a State document that denotes the Standard Oil inspiration? And someone must have informed the Ambassador of the "impression in the minds of the American public." Who could have done it better than the people who caused the impression—Standard Oil? "The impression," said Mr. Davis, "has been due in large part to reports of . . . actual work" (in Mesopotamia) ". . . and permitted researches by certain individuals"

(suspected to be British oilmen). Who could have made reports from such distant foreign parts, where the diplomatic corps of the United States did not extend, but the foreign " scouts " of Standard Oil? " The United States Government," observed Mr. Davis, " believes that it is entitled to participate in any discussions relating to the status of such concessions, not only because of existing vested rights of American citizens, but also because the equitable treatment of such concessions is essential to the initiation and application of the general principles in which the United States Government is interested." Which is but the diplomatic way of saying " Hands off the concessions of Admiral Chester, and don't forget that Standard Oil is interested in everything."

Clearly the language and substance of the ambassadorial Note showed unmistakable traces of its propagandist origin. The " authoritative statements " were fables. No pipe-lines, no refineries, then existed in Mesopotamia and the only oil well being worked was a pre-war Turkish hole developed for military purposes under military supervision. And the United States Government was hardly in the moral position to preach, without hypocrisy, the principle of economic equality when it had " taken powers to reserve for American interests the right to drill for oil on United States domain lands," when it had on various occasions [1]

[1] Lord Curzon instanced two occasions, one in Hayti, the other in Costa Rica.

"used its influence in territories amenable to their control . . . to secure the cancellation of oil concessions previously and legitimately obtained by British persons or companies," when the working of public lands containing oil in the Philippines was confined to citizens or corporations of those islands or of the United States.[1] Such an old diplomatic hand as Lord Curzon had no difficulty in parrying this clumsily directed attack.

The attitude of the British Government, too, was not without its commercial inspiration. Let us frankly admit how far Mr. Bainbridge Colby was right before he went wrong. He was right in affirming that the spirit of the San Remo Agreement, in so far as it applied to Mesopotamia, was incompatible with the principle Lord Curzon professed of securing to the Arab State, then unorganised, the oil resources of the land. As a matter of fact, a British minister had publicly stated, as Mr. Colby pointed out, that the concessions granted by the former Turkish Government *must* be honoured. Did not that mean that Great Britain intended to "advise" the Arab State to confirm—in fact, to see that it did confirm—the pre-war concession to the Turkish Petroleum Company? Indeed, so much did the British Government take it as a *fait accompli* that it had

[1] Article I of the Act of the Phillippino Legislature of 31st August, 1920. Early in 1922 it was announced that the public oil lands of the Philippines were opened to foreigners. Here was a little victory for Lord Curzon.

gone the length of making this agreement at San Remo under which the rights of France to a share in the Mesopotamian oil resources were met by the positive assurance that *either the British Government would exploit the oil or some oil company "under permanent British control" would do so.* Said Mr. Colby: "(The United States Government) would be reluctant to assume that H.M. Government had already undertaken to pass judgment upon the validity of concessionary claims in the regions concerned and to concede validity to certain of those claims which were apparently the entire Mesopotamian area . . . In view of your assurance that it is not the intention of the Mandatory Power to establish on its own behalf any kind of monopoly, I am at a loss to understand how to construe the provision of the San Remo Agreement that any private petroleum company which may develop the Mesopotamian oilfields 'shall be under permanent British control.'" This was the most powerful, the most dexterous stroke that Mr. Colby delivered in the whole of the diplomatic tourney.

Nevertheless, Mr. Colby fell again to tactics which revealed his Standard Oil tuition. "Such information as this Government has received," he observed, "indicates that prior to the war the Turkish Petroleum Company . . . possessed in Mesopotamia no right to petroleum concessions or to the exploitation of oil." From whose office could Mr. Colby have received this precious information but the offices of the oil companies who had

been negotiating for concessions with the pre-war Turkish Government? And Mr. Colby actually proclaimed his adherence to the "stunt," so plainly labelled "Standard Oil," of the exhaustion of the American domestic oil resources. Nay, more. "The Government of the United States assumes that there is a general recognition of the fact that the requirements for petroleum are in excess of production." Was not this precisely what Mr. Teagle, President of Standard Oil, had been saying for some time? It was, indeed, the favourite slogan of any oil salesman desirous of maintaining high prices. It was the same kind of unfortunate propaganda that led to the production in that same year in the United States of 35,000,000 barrels more than the requirements of the country demanded.

What were the results of this first round in the diplomatic lists? The various thrusts and parries convinced the neutral observer that both sides had committed mistakes, both sides had failed to act up to the principles they respectively preached. In fact, both Governments in succumbing to such material considerations surrendered their moral positions. Directly, there was no result but loss of dignity, but indirectly Standard Oil won something. As Lord Curzon had argued that the pre-war claims of the Turkish Petroleum Company would have to receive as much recognition as the pre-war prospecting claim of Standard Oil in Palestine, it was felt politic later on to grant the

request of Standard Oil to be allowed to explore its ground in the latter. One sees how Standard Oil had everything to win and nothing to lose. And soon it had a livelier protagonist for the lists.

CHAPTER XII

PRESIDENT HARDING'S ROUND AND A TRUCE

In March 1921, flags were flying in Washington to greet the incoming administration of President Harding. We do not know whether the flags of the oil companies' buildings were any larger than others, but undoubtedly the hearts of the directors of Standard Oil (New Jersey) beat with a new joy. It is generally admitted that the Harding administration implied increased power in State affairs for the "big business" interests. Particularly so for the oil interests. It is said that at the start of the Presidential election one prominent oil millionaire had nominated a Democratic candidate, and had given him fine oratorical support until he discovered the candidate was not prepared to take a strong line in Mexico on behalf of American oil interests. Thereupon the oil millionaire hurriedly dropped his Democrat and gave his whole-hearted and enthusiastic support to Republican candidate Harding, who had been bold enough to declare he would go the whole hog. Moreover, there was the electoral promise that the new Administration would sturdily oppose the granting of monopolistic concessions by any Govern-

ment—in Mexico, or South America, or the Dutch East Indies, or former Turkish territories, or China, or Siberia. This promise had even satisfied Standard Oil. Indeed, the President-to-be had published in Oklahoma City, the heart of the oil world, a fine declaration that the future of the world belonged to the internal-combustion engine, and thereby to the owners of the oil fuel, on which business and industry more and more depended. One can imagine the applause that shook the oil-laden welkin of Oklahoma State. The country confidently settled down to an oil policy of no interference in business at home, but plenty of interference abroad.

An opportunity quickly arose for the new Administration to show its oil colours. It was the Djambi affair—an affair entirely of Standard Oil. Mesopotamia and Palestine may have been of remoter interest from the point of view of actual oil production, but the possibility of tapping the supposedly rich oilfields of Djambi, in the Dutch East Indies, was a matter of keen business competition between Standard Oil and the Royal Dutch-Shell combine. The United States Minister at the Hague delivered a note to the Dutch Government on April 19th, 1921, protesting against any exclusive grant of the oil rights in this region, giving it as reason for the concern of the Washington Government "that a monopoly of such far-reaching importance in the development of oil is about to be bestowed upon a company in which foreign"

(by which was meant British) "capital other than American is so largely interested." Standard Oil could not have had stronger political support than this, even if Mr. Bedford or Mr. Teagle had been the occupant of the White House. Nevertheless, at the end of April, the Second Chamber of the Dutch States General passed the Bill awarding the working of the Djambi oilfields to the Bataafsche Petroleum Maatschappij, a subsidiary of the Royal Dutch, on the ground that it had submitted the highest tender.

The oil flag of the new Administration fluttered bravely again at the passage of the Treaty by which the United States paid to Colombia $25,000,000 to close the Panama incident.[1] The Government support of the Treaty was, in ex-President Wilson's day, based on some considerations of principle, but with the advent of his successors these considerations assumed a more material aspect. Mr. Fall, then Secretary of the Interior, shared the popular belief that Colombia would become one of the great oilfields of the world, and openly declared his anxiety to make this payment to Colombia the stepping-stone to a treaty of commerce and amity, which would secure to American interests the chief share in the exploitation of the oil. Frankness of expression in a statesman is at any rate to be admired. Mr. Fall cheerfully justified the flagrant commercialism of his argument by trotting

[1] In 1903 Panama seceded from Colombia and turned over to the United States the 10-mile strip which is now the Canal zone.

out the fearsome bogey—brought up by Standard Oil, but disguised now in official garments—of British domination of the world's oil resources. One cannot help recalling that in 1913, when Lord Cowdray had obtained extensive oil concessions in Colombia, the Monroe Doctrine had been invoked to secure American domination of Colombian oil resources. So it was that the contingent benefits in the shape of oil concessions became the national case for the passage of the Colombian Treaty. As one Senator observed: "It was the oil concession which Mr. Secretary Fall pipe-lined into the Treaty that carried it through."

This flying of oil colours in Washington was not unnoticed in London. Lord Curzon had his attention directed to it by the oil secretariat, with the result that a memorandum, which the latter had prepared, was despatched to the British Ambassador at Washington (April 21st, 1921) for the purpose of showing that the British "closed door" was really more or less open all the time, and that the British domination of the oil resources of the world was an idle and provocative myth. Nevertheless, the fact that the British Government had categorically denied controlling the Royal Dutch-Shell combination seemed only to incite American statesmen, in the next affair, to more positive declarations on that point. Mr. Secretary Fall, at the time of the strike of American oil companies in Mexico against payment of Government taxes, deliberately charged the British Government with treachery

and malice aforethought, to wit, by "ostensibly" supporting American protests against Mexican "confiscatory" taxation while (as owners of Mexican Eagle, which it was not) secretly making its own terms with President Obregon. In a fine frenzy of oil patriotism the Navy Department despatched a cruiser and a gunboat to Tampico to protect American interests. Was ever a more model administration designed for the oil millionaire?

In the autumn of 1921, at this unpropitious moment when the thorough-going commercialised policy of the Republican administration was fairly under way, the British Government was indirectly drawn into a dispute with Standard Oil over a concession in Northern Persia. The Persian Government at one of its recurrent moments of impecuniosity had been forced to obtain a little petty cash by granting an option to Standard Oil over territory which the Anglo-Persian Oil Company claimed as theirs. The story is somewhat involved. It will be recalled that the original D'Arcy concession did not extend to the five northern provinces of the Persian Empire.[1] The three concessions covering these provinces, which were held by a Georgian gentleman of the name of Khostaria, were sold at an exorbitant price to the North Persian Oil Co., Ltd., in which the Anglo-Persian Oil Company held a controlling interest. Now the dawn of independence for the republic of Georgia on the collapse of Czarist Russia curiously turned out

[1] Azerbaijan, Ghilan, Astrabad, Mazanderan and Khorassan.

to be the sunset of these Anglo-Persian concessions. On the plea that M. Khostaria was a Russian and that by the treaty of July 26th, 1921, it was provided (1) that concessions forced from Persia by the late Czarist Government should be renounced and (2) that such renounced concessions should not be handed over by Persia to any third State or its citizens, the Persian Government maintained that these concessions were invalid. One would like to know how it was that Standard Oil came to toy with an option on concessions which were so perspicuously confiscated. To add piquancy to the situation the Russian Soviet Government intervened with a protest. It claimed under an agreement of 1907 (which had since been nullified) large concessions in Persia. It had done its best to support its claim by overrunning the northern provinces with Red soldiery. Standard Oil did not at once take up the option from the Persian Government. It entered into negotiations, followed them with a contribution to Persian Government funds, and at the same time gravely invited the Anglo-Persian Oil Company to consider some compromise. There was neither legal nor moral necessity for the Anglo-Persian Oil Company to make any compromise with Standard Oil. But was the British Government, as controlling shareholder in the Anglo-Persian Oil Company, to be drawn again into a conflict with Standard Oil, and so with the American Government? As the circumstances lay it seemed

bound to be so. Moreover, the new Administration at Washington had despatched a further and stiffer Note to Lord Curzon, which was considered unfit for publication, and has never yet been printed. So the British Government came to the conclusion that it must declare an " oil truce " with America.

The influence of oil on politics is surely seen at its worst in the method which now developed of making peace between the Governments of two great Powers. For the betterment of Anglo-American relations the British Government fell to bribing Standard Oil. The bribes were to be paid in the oil of Persia and Mesopotamia. From the point of view of international morals, this was deplorable. Even from the commercial point of view, the expedient was unwise. Did anyone suppose that Standard Oil could be silenced by sops from two of the world's oilfields as long as it did not control the rest?

Sir John Cadman was sent in the autumn of 1921 to the United States to bear and display the olive branch. For reasons, which are not difficult to guess, he had just exchanged his official desk as chief of the Petroleum Executive for one as technical adviser to the Anglo-Persian Oil Company. But even so one is driven to believe that he went at the instance of the British Government for the reason that the alleged commercial purpose of his visit was wholly incredible. It was said that he went to ascertain the latest oil

developments in the United States, particularly in regard to refining. As if the oil companies of America would open their doors and invite the now accredited representative of a foreign competitor to investigate their refining patents! Trade secrets are never so jealously guarded as in this most suspicious of industries. Is it to be imagined that Sir John Cadman, professor, technologist and expert adviser to the Anglo-Persian Company, had to walk round the oil towns of America in order to familiarise himself with the outside brick-work of a modern refinery? Rather is it probable that he was commissioned as the British Plenipotentiary in the United States for concluding an oil truce. He had already passed with honours as an oil diplomatist. The laurel wreaths of San Remo were fresh upon his brow.

No doubt the season of the year favoured Sir John Cadman. It was Christmas time—a much more hearty affair on that side than on this—and the American Petroleum Institute was officially sitting at Chicago, holding its annual meeting. The place swarmed with journalists and representative oil leaders of the States. There was the sound of much talking, lunching and dining, and a general atmosphere of conviviality. Enter the disarming Sir John Cadman with a frank expression and an unpretentious manner. He was the embodiment of the cause he came to profess—the "open door." He literally left his door open to all callers. He answered every journalistic question, listened

patiently to the hostile, and then gave his simple understanding of the position with bits of dull official history, which explained everything away. There was nothing distant about this Britisher, nothing reserved or suspicious. The voluble American burst in upon his room with a pistol, and found he had already laid all his cards upon the table, turned out his pockets, rolled up his sleeves. What cause was there to fire? So the pistols were laid down in Sir John's room, and his visitors went out forgetting them.

Sir John Cadman's formal address before the American Petroleum Institute on December 8th was no doubt the summing up of his private conversations with the gentlemen who dropped their pistols. He patted the American oil industry heartily on its broad back, and told the early history of Lord Fisher and the Anglo-Persian Oil Company (we do not differ in the story—only in its interpretation). The Government, he said, had no voice in the management of the Company.[1] And he went on to denounce the iniquity of Government control in commerce. Naturally his hearers were deeply touched by the anti-Government bias so deeply felt by the newly-appointed technical adviser of the Anglo-Persian Oil Company. When he had denied, and reiterated his denial, that the British Government had any holding in the Royal

[1] Sir John Cadman was wrongly taken by some American oil journals to imply by these words that the British Government had no interest whatever in the Anglo-Persian Oil Co.

Dutch-Shell combination, when he had declared that the oil in Mesopotamia belonged, and was secured, to the Arab State, when he had fervently expressed his whole-hearted devotion to the policy of the "open door," then no doubt his hearers rose up and welcomed into their midst this British convert to American oil gospel. There and then the oil truce was written, if not on paper, yet on the tablets of the heart. We do not question Sir John Cadman's sincerity. Indeed, it is well-known that he is sincerely antipathetic to forms of Government control, but in the general enthusiasm it was overlooked that the British Government had conceded nothing of its principles of participation in the oil-producing business, and that Standard Oil had been bribed behind the scenes. Is it hyperbole to write of bribery? In the first place, Sir John Cadman was commissioned to offer half the spoils of Northern Persia, that is to say, to invite Standard Oil to develop the five northern provinces on the "50-50 basis" with the Anglo-Persian Oil Company under M. Khostaria's concessions. Sir John Cadman undoubtedly believed that this was a sound business arrangement for his Company, for Standard Oil would have to put up half the enormous capital likely to be required. Nevertheless, Standard Oil gained much more than it was entitled to. Not only had it no rights whatsoever in the Persian Empire, but it had no experience. An American oil company of the stamp of Standard Oil was not *au fait* with the

art of handling an Eastern Government after the stamp of Persia. The political experience of a British Company with Government backing was an asset not to be despised. Standard Oil wisely accepted the proposed gift-horse, without looking in its mouth. In the second place Sir John Cadman was advised to take up discussion of the plan, suggested originally by the British Government, of allotting Standard Oil some participation in the Turkish Petroleum Company.[1] Here again was a concession of enormous value, beyond anything that Standard Oil could claim or might deserve, seeing that it had no status whatsoever in the Mesopotamian oilfields, and no right to represent the American oil industry unasked. As these gifts were both Government expedients, we may fairly call them bribes. That the first happened also to be a business expedient for the Anglo-Persian Oil Company does not alter its political character. Of the same order must be classed that other Government expedient to allow Standard Oil to explore provisionally the areas in Palestine over which it claimed a prospecting licence.[2] With this Palestinian act of grace, with the spoils divided equally in Northern Persia, and about to be quartered in Mesopotamia,

[1] See p. 144. It is not clear how it came about that Standard Oil alone represents "American interests" in this affair.

[2] Mr. Churchill explained that the grant of this permission did not prejudice the question of the validity of the claims, and that no actual exploitation would be permitted until the political status of Palestine had been "regularised."—House of Commons, February 18th, 1922.

Standard Oil could well afford to bless and applaud the oil truce which Sir John Cadman had in perfect sincerity proclaimed.

Here was a pretty end to all the fine declarations of Mr. Wilson's administration and the noble protests of Lord Curzon! Could any interpretation of the principles of equality of economic opportunity have been more cynical? Opportunity, not for all, but for Standard Oil was the finished product. And when all is said and done, the policy of bribery is one of folly. It leads from bad to worse. Thus it happened that, far from being silenced, the voice of Standard Oil is heard again in the ante-rooms of international conferences whenever economic rights are brought into the agenda and oil is any part of the issue.

CHAPTER XIII

AMERICAN INCONSISTENCIES

It is not for us to criticise the domestic affairs of the United States; but to test her international actions by the plumb-line of her professed principles is permissible for all. The United States Ambassador avowed that his Government went upon "an enlightened interpretation of what constitutes its legitimate commercial interests." [1] How far is this supported by the history of the events we have related?

Clearly the interpretation of legitimate commercial interests is liable to considerable variation. Does the Washington Government intend to support with diplomatic pressure every American adventurer in foreign parts? Let us suppose that an inveterate oil gambler chooses to pay the Soviet Government for a concession covering the confiscated property of a British national, merely in the hope that he will be paid more to clear out and stop his mischief. Should the Washington Government support him? Obviously not. Let us take the case of the oil

[1] See Mr. Davis's Note to Lord Curzon, May 12th, 1920 (Cd. Paper 1226).

grants in Sakhalin Island.[1] The Sinclair Consolidated Oil Corporation has accepted a concession from the Soviet Government over the northern half of that island, which was granted by the Czarist Government in 1909 to the second Sakhalin Syndicate Ltd., whose directors are assured by the British Foreign Office that their rights will be protected. Will the Washington Government support Mr. Sinclair? Probably not. Clearly the American oil prospector, wild-catting in foreign countries regardless of international relations and the property rights of other nationals, will not receive, and is not entitled to receive, the political support of his Government. Can Standard Oil then justifiably and morally receive the backing of the Washington administration in Mesopotamia, where it has no vested rights, or in Northern Persia, where it had accepted a grant over a concession belonging to the Anglo-Persian Oil Company? Undoubtedly not. And the Washington Government has been at pains not to appear officially in the oil dispute over Northern Persia, nor to mention Standard Oil by name in mentioning the "vested rights of American citizens" in Mesopotamia. But what did it do but fight Standard Oil battles indirectly on the ground of "general principles"?

Let us examine these principles. First, it declared that it was entitled to "participate in any

[1] The southern half of Sakhalin Island was ceded to Japan in 1905: the northern half officially belongs to Russia, but the Tokyo Government still retains control.

discussions relating to the status of such concessions" (as the Turkish Petroleum Company) on the principle of economic equality in mandated territories. Next, when it became apparent from Lord Curzon's replies that the pre-war grant to the Turkish Petroleum Company was not going to be discussed at all (being fixed and vested), the American Government felt it their duty to remind the world

> "that, without seeking special privilege or favour," it had not "assented to the principle that it may be dis-associated in the rights of peace from the usual consequences of association in war."

One observes that the high-sounding note of the principle of economic equality had now sunk into the lower note of the principle of "sharing the swag." How had the mighty fallen! The United States had originally set a fine example of charity by virtuously declining to take a mark of German reparations or a square mile of the German colonies, but after four years was found making an exception to its self-denying ordinance in the case of oil-fields in Mesopotamia! And that, too, in hardly logical circumstances. What, indeed, are "the usual consequences of association in war"? Surely that one should be associated in making a treaty of peace. This, however, the United States had avoided. So the astonishing spectacle is presented of the Washington Govern-

ment refusing to make war with Turkey, or to make peace with Turkey, or to take up the Armenian mandate, yet claiming equal privileges in exploiting the oilfields in former Turkish territory. Even Mr. Ralph Arnold, a fearless critic of British oil policy, has declared, à propos of Mesopotamia, that "in all fairness if America asks for participation in foreign fields she will have to take up her share in the burden of protecting those fields. We cannot ask England to establish order and then go in and share the profits without assuming our share of the responsibility." But that is what has been done. While refusing the responsibilities, Washington claimed the privileges of peace. What had moved this self-denying Government to such strange issues? One answers Standard Oil, because Admiral Chester was hardly potent enough to account for it. Besides, Standard Oil had no "vested rights," and it needed therefore "principles" to upset the vested rights of others. It seems that whenever Standard Oil found a door closed, it affixed a door-knocker labelled "Open-door principle: Republican Administration," and caused the official representatives of America to knock loudly.

With such consistency of oil intentions, consistency of political principle was hardly to be expected of the American Government. The "open-door" policy it advocated for abroad was not applied, for example, to its shipping regulation at home. Coastwise shipping in the United States

is limited to American-owned vessels. In the report of the Royal Dutch Company for 1922 appeared this paragraph :

> "The tank vessels *Silver Shell*, *Gold Shell* and *Pearl Shell* could not be employed for the purpose for which they were originally intended on account of the restrictive regulations of the American Shipping Act. Permission to sell these tankers to a foreign company was again refused us this year by the American Authorities."

And the Royal Dutch directors added with obvious justice :—

> "We should like to express the hope that the American legislature in its enthusiasm for this policy (of the open door) may carry it with consistency in certain directions connected with navigation in which at present it has been conspicuously absent in their laws, although fully respected in ours."

And compare the American Government's "principle" for Mexico with its "principle" for Mesopotamia. It did not recognise the Obregon Government for fear lest the vested rights of American oil companies should be prejudiced. So it adopts "the one clear principle of international intercourse, that international obligations shall be met and that there shall be no confiscation or repudiation." How different from its Mesopotamian "principle"! In that country the vested

rights are not American but British, and the American Government will not concede that international obligations, as far as the Turkish Petroleum Company is concerned, should be met, but toys with the idea of repudiation, and advocates the "open door" and no secret treaties. The policy is, indeed, consistent—the policy of promoting American oil interests—but the principles are changed to suit the particular occasion. As the *New York World* remarked :—"Show Mr. Hughes an oil well and he will show you an oil policy." President Wilson's Secretary of State had given it out that it was "of the highest importance to apply to the industry the most enlightened principles recognised by nations as appropriate for the peaceful ordering of their economic relations." Yet the succeeding administration, it seems, seized on any "principle," however illogical, to fight for the interests of its most powerful oil corporation. It may be true that the views of the American Government were not "dictated," as Mr. Colby said, "in any degree by considerations of the domestic need, or production, of petroleum," but can one reasonably avoid the conclusion that they were dictated by Standard Oil?

PART III

OIL AND INTERNATIONAL CONFERENCES

CHAPTER XIV

GENOA (APRIL 1922)

The classical legend of Cadmus seems to fit in some particulars the story of Sir John Cadman in the United States. His, indeed, was a Cadmean victory. He may have slain the dragon of suspicion, but from the dragon's teeth sprang up the armed men of Standard Oil and Royal Dutch-Shell to fight each other in the ante-rooms of European council-chambers. The international conferences of 1923 are successive proofs that however much diplomatists agree to silence oil, if they do not make peace without bribery, oil will not be kept out of diplomacy.

One forgets at how many conferences and in how many continental health resorts Mr. Lloyd George tried to whip the nations of Europe into economic salvation. The evangel of European reconstruction fell, however, among cynics. A French writer thus expressed the consensus of opinion: "Spa était la conférence du charbon. San Remo fut la conférence du pétrole, et Gênes continue San Remo." That turned out to be true, though it was by no means clear at first. At Genoa the representatives of the Soviet Government

had been admitted to the Conference table of the Powers for the purpose of setting Europe, once and for all, on its economic feet. Signor Nitti expressed the opinion that the programme of the Conference forbade the hope of any practical achievement, but some external blow was needed to dislocate the "vast machinery of Genoa." The report of a deal between the Royal Dutch-Shell group and the Soviet Government supplied the blow, and Standard Oil ensured the accuracy of Signor Nitti's conclusion.

The oil crisis at Genoa caused much nonsense to be written on the Russian position. What were the real acts behind the scenes? The Royal Dutch-Shell group is the most heavily involved in the Russian oil industry. It had acquired both the Rothschild company in Baku and the Rothschild distributing agencies throughout Russia. At the same time it had subsidiary companies in the Grosny and the Emba (Ural) fields. Since the war, it had even acquired the Lianosoff and Mantacheff interests in the Grosny district. Then Standard Oil had purchased, in 1920, control of the Nobel interests in Baku, and it is said that of the Nobel shares remaining free the Anglo-Persian Oil Company has since acquired a considerable block. By this distribution Great Britain, Holland, and America are primarily concerned. France is hardly concerned at all. Before the war there were two big Russian companies, called the Neft and the Bakinski, the shares of which were freely dealt

in on the Paris Bourse, but they were controlled and operated by Russians, not by the French, though it is true the banking firm of Dreyfus and Company assisted in raising additional capital. After the Russian Revolution many Russian owners of oil properties—and there were originally a large number of individual holdings in the oil-fields—escaped to Paris, and there obtained some advances from Paris banks by pledging their confiscated oil holdings. In the same way many "bearer" shares in Russian oil companies are now held by French banks. That is the present extent of French interest in Russian oil, and even if the properties were returned by the Soviet Government the French banking firms would be quite incapable of operating them. The position is similar with regard to Belgian interests. A single Russian company was acquired by Belgians before the war—the Akverdoff. They never added to their holding.

Long before the Genoa conference the Royal Dutch-Shell group had been quietly trying to make some arrangement with the Soviet Government, on their own responsibility, for the working of the Baku oilfields. They had employed for a time the late Colonel Boyle, who, having been foremost in the Klondyke Gold rush, had many traits associated with a hero of sensational fiction and lent an air of mystery and desperation to these oil negotiations in the popular imagination. In truth, however, the negotiations were conducted with M. Krassin in London by the Royal Dutch-Shell principals.

Colonel Boyle was employed on more dangerous missions in Transcaucasia. When the Cannes Conference had decided upon the meeting at Genoa, no final settlement had been reached and negotiations stood suspended with the two parties in somewhat strained relations. To view this business fairly, let it be remembered that the Anglo-Russian Trade Agreement had been signed but a year, heralded by economists as the dawn of a new age for Europe (*pace* the former Russian proprietors). Mr. Lloyd George's Government was encouraging every effort to trade with, and develop the resources of, the Russian people. Indeed, so strong was the Governmental enthusiasm that the conservative directors of the Anglo-Persian Oil Company were actually induced to buy a cargo or two of Baku oil from the Soviet authorities. The Royal Dutch-Shell directors must have had all the good wishes of the British Coalition in their negotiations. What kind of bargain they were seeking to strike did not concern the diplomat.

Let us appreciate, if we can, the attitude of the Soviet Government. Their original scheme was to have one unified administration of all the oilfields, of which 25 per cent. of the shares were to be held by the Soviet Government, 25 per cent. were to be given to the former owners of oil properties, and 50 per cent. were to be taken up and paid for in cash—to provide working capital—by an operating group, composed, if the Soviet Government could have had their way, of American,

Dutch and British groups. This scheme was killed, first by the Pan-Russian Oil Congress at Moscow, which prevented unification by dividing the Grosny field into several, and the Baku field into many, administrative areas, and, secondly, by the refusal of Royal Dutch-Shell and Standard Oil to enter any combination together.

Such was the position when the Genoa Conference assembled in April 1922. The original proposals for a combine of Royal Dutch-Shell, Standard Oil, and the Anglo-Persian Companies had proved abortive. The Cadmean peace had but recently been completed. There was at the moment no friction between the British and American Governments, and possibly Sir John Cadman, on his Company's behalf, had arranged with Standard Oil some understanding on the Russian position. The American Government had repeated its refusal to recognise any concessions that might be granted by the Soviet out of confiscated properties. When Mr. Bedford, the chairman of Standard Oil, left France for New York on the eve of the Conference, some thought that little was to be expected of Genoa from the oil point of view. But following his arrival on the other side American apathy in the proceedings at Genoa was suddenly changed into anxious interest by a newspaper report of a settlement between the Royal Dutch-Shell combine and the Soviet Government of their negotiations for the development of Russian fields.

Suspicions were thoroughly aroused. Standard

Oil set its unofficial machinery in motion. It turned naturally to the French and Belgians behind the backs of the British. The Neft Company, in which the French were interested, had already been co-operating with the Russian General Petroleum Corporation, which, being controlled by Nobel's, came within the sphere of influence of Standard Oil. Thus Standard Oil and French financial interests began to work together on all points at Genoa. Simultaneously in Paris and Brussels the politicians were warned—by American or native interests—against historic British greed. So we find the French and Belgian Governments imagining, or pretending, that they had oil rights in Russia which were jeopardised by the alleged Shell-Soviet agreement, and demanding the return of confiscated property to the former owners. This attitude was, of course, in accordance with the interests of the French banks, whose holdings of Russian shares would appreciate in value more rapidly on restitution than on compensation, to which each company would have to prove its claim. The British diplomatic attitude was the reasonable one, that the Soviet Government could not be expected to go back on nationalisation principles, but should recognise the obligation of compensation. Meanwhile America once more officially declared, or was pushed into declaring, for the "open-door" policy, while unofficially her oil interests, that is to say, Standard Oil interests, backed the French and Belgian stand on the terms

of the Allied Note to Russia. Thus the Belgian demand for the return of private properties without leaving the Soviet Government the option of compensation and the French amendment to the Russian memorandum were both influenced by the persistent pressure of the oil propaganda.

The newspaper story was false. There was, in fact, no basis for the reported Shell-Soviet deal regarding oil properties that had been confiscated. The negotiations had not been recommenced though there may certainly have been some discussion of an agency contract for the export of the refined products from the Caucasus. The Moscow Government had formed a company to handle the oil exports to Europe, and it is pretty certain that the Royal Dutch-Shell were seeking to obtain the exclusive agency of this Russian export company. The seriousness for Standard Oil lay in the fact that if ever they got back the management of their properties at Baku, they would, if such a deal had been concluded, only be able to handle their exports through the agency of Royal Dutch-Shell. Such a catastrophe was worth avoiding.

The motives prompting the exaggeration of this oil business into a first-class political question dominating a conference that was meant to settle the economic reconstruction of Europe are not difficult to understand. For M. Krassin it may have seemed at first a means of stimulating Standard Oil to enter an operating group with Shell or of producing competitive bids from other oil companies

anxious to obtain concessions in Russia. For a section of French opinion it was a useful means of stampeding American opinion against a Lloyd-Georgian Conference. For the newspapers in England and America it provided ample scope for sensational headlines, and a means of increasing the public interest in Genoa that was flagging rapidly. For Standard Oil, what? It has been pointed out that Standard Oil alone of the American oil companies was in any way anxious as to the Soviet disposal of its oil exports. Even so, it must not be thought that Russia, any more than Mesopotamia, Palestine or Djambi, represents the only future source of crude oil supply for Standard Oil. Yet this minor interest of the great oil trust was sufficient to hamper the negotiations and limit the achievements of the world-conference at Genoa.

CHAPTER XV

THE HAGUE SEQUEL

THE Conference at Genoa broke up under the depressing necessity of a further meeting of its experts at the Hague. There was a firm resolve on the part of the British Delegation—led by Sir Philip Lloyd-Greame—to restore the Allied discipline that had been broken at Genoa and to accommodate as far as possible the oil sensibilities of the French. Apparently the conversations were no more helpful than those at Genoa. The American observer intervened on lines significantly parallel with the interests of Standard Oil. The oil interests were left to negotiate privately with the Soviet Government, and the hands of the Royal Dutch-Shell were tied.

It should be mentioned that the "oil entente" which suddenly sprang up at Genoa between the French and the Belgians, in the face of pretended danger from the Shell-Soviet scheme, developed later (June 16th), at the French Government's suggestion, into the "Syndicat Franco-Belge" for the protection of French and Belgian interests in the Russian oil industry. This syndicate sent

"delegates" to the Hague, and behind the official doors conversations followed with Sir Henri Deterding and other representatives of the Royal Dutch-Shell combination. One fancies that this was the Hague conference that really mattered. The other may have monopolised the Press, but the conference of oil interests achieved something more concrete. An "International Defence Committee" was formed, and Royal Dutch was induced to join up with the little interests in one united family of hope or despair for the common protection of all former oil proprietors in Russia. The four points of this International Defence Committee, to which the oil companies pledged themselves in Paris on September 19th, 1922, deserve to be recorded :—

1. That no member should acquire directly or indirectly the confiscated properties of other members.
2. That the working of oil lands was only possible on the reinstatement or compensation of all parties concerned.
3. That no member should accept oil lands belonging to the Russian State as a private concession without the sanction of all other members.
4. That negotiations with the Soviet Government should be conducted in common and by representatives unanimously elected.

As a corollary of these points the Committee passed a resolution: "That it is inadvisable that

any of the interested parties should prejudice, directly or indirectly, the existing interests and acquired rights of the other owners who have been dispossessed by Soviet legislation."

The four points of the Defence Committee, like the Fourteen Points of Mr. Woodrow Wilson, were soon to be broken in spirit, if not in letter. The trouble arose from the fact that exports of oil from Russia continued to be made in even greater quantities. From May, 1922, to June, 1923, 165,448 tons were exported, of which Germany took 44·7 %, Great Britain 42·3 %, France 6.9 %, in values; and in bulk Great Britain took 55 %. The purchasers were for the most part "independent" firms. Naturally the International Defence Committee viewed this economic recovery with disapproval, and it is said that at a meeting on February 22, 1923, Sir Henri Deterding, having stated that none of his concerns was purchasing Russian oil, promised on an approaching visit to the United States to endeavour to persuade Standard Oil to act likewise. Then two unforeseen events happened—first, Sir Henri Deterding had an accident in the hunting field and stayed in bed in England, and secondly, an English "independent" firm which had been trading in Russian oil, purchased 30,000 tons of Russian kerosene, a very considerable amount for an individual marketing firm. The fact that an "independent" was manifesting such activity roused the Shell group, as dictators of the British oil markets, to aggressive

action. Immediately (April 1923) one of its subsidiaries, the Asiatic Petroleum Company, closed with the Soviet agency in London—Arcos Limited [1] —for 70,000 tons of kerosene with an option on 130,000 tons more. Was Sir Henri Deterding, on his sick bed, aware of these negotiations? It is said that they were actually in progress when he was making his denial and promise to the Committee on February 22nd. At any rate protests were made by the Franco-Belgian syndicate, and the members of the International Defence Committee roundly accused the Royal Dutch-Shell of bad faith. To that the latter made the following replies, first, that the operations of the independent oil firm made it impossible for the Shell (in London) to refrain any longer from itself taking Russian oil; secondly, that the resolutions of the Committee referred to oil properties, not to oil products. "From the very earliest discussions in regard to the co-operation" (of former Russian proprietors)—so the directors of the Royal Dutch have written in their last annual report—"we have emphatically stated that we reserved to ourselves complete liberty in regard to the purchase of products." But the unconvinced members of the Defence Committee argued that to make such reservations and to deal in the only thing which is of interest to the producer, namely the product of the land,

[1] Arcos Ltd. issued capital £100,000, of which 98 % is held by Messrs. Krassin & Klishko.

is disloyalty to the oath which members swore—not to prejudice directly or indirectly the rights and interests of other dispossessed owners. Further, they said that if the Royal Dutch-Shell had joined in a general boycott of Russian oil, the Soviet Government would have been compelled by "economic pressure" to restore the oil properties to their former owners. To that the Shell directors rejoined (in the Shell annual report) that there have always been parties outside the former owners (and Defence Committee) who have been ready to deal in Russian oil on their own terms, while others stood aloof, and that part of the oil was derived from State, not private lands, and part from former Shell lands. That was correct, and it is, indeed, quite possible for Baku oil exports to find markets in Central Europe (apart from Britain) by exchange in kind. However much we may feel offended by the insincerity of the Royal Dutch directors' plea that "the boycott is never an agreeable nor even a clean weapon" to use, seeing that Royal Dutch does not usually shrink from any weapon in order to attain its own aggressive ends, we must surely admit that there was no great economic pressure on the Soviet Government to restore the expropriated lands which the Royal Dutch-Shell could have prejudiced. Only a war blockade would have succeeded, and Great Britain was not at war.

Whenever the oil trade is concerned in a dispute

passions run high, and run into politics. The Franco-Belgian syndicate sent, at the end of June, an outspoken document to M. Poincaré in which it claimed that the contract for Russian kerosene concluded between the Soviet Government and the Royal Dutch-Shell group was a grave violation of the rights of French and Belgian companies, another attempt by that group to lay hands on a monopoly of Russian oil and to evict the former proprietors. Here was an unblushing invitation to the French Government to take political action for its oil "interests." The document concluded with the hope that the French Government would (*a*) forbid all traffic in France in goods belonging to foreigners and confiscated in Russia, (*b*) refuse authority to export capital to Russia from companies who cannot prove their titles as legitimate proprietors, and (*c*) undertake reprisals against all vexatious measures adopted in Russia. Questions were asked in the British House of Commons with a similar purpose. For the Soviet Government here was a fine opportunity to advertise abroad that the egotistical interests of the former capitalist owners will always predominate over their common interests, and that Western politics were hopelessly and irrevocably entangled with commercial schemes.

As we write we have not heard the last of this affair. The settlement of the Anglo-Soviet political differences has meant another lease of life for the Anglo-Russian Trade Agreement, for the oil trade

another lease of disagreement, and for international politics a continued *mésalliance* with oil. So it turned out that at the Hague, as at Genoa, Standard Oil had helped to nullify an international conference for a petty and impermanent gain.

CHAPTER XVI

LAUSANNE

First Conference: November 1922—Feb. 1923.
Second ,, April 1923—July 1923.

AT Genoa, Baku. At Lausanne, Mosul. Such is the oil sequence of events.

With the end of 1922, Mr. Lloyd George had abruptly disappeared from the political scene. The Greeks had been routed in Asia Minor: the Turkish victory had been followed by the burning of Smyrna, and the Lausanne Conference was called to make a new peace with the nation which had so unfortunately risen from its ashes of 1918.

There were several new features in the political background which affected the oil situation. In the first place, the Lausanne Conference represented a return to the old system of diplomacy. At Genoa, Mr. Lloyd George had dominated the international stage with his own personal enthusiasm and his faithful Cabinet Secretariat. At Lausanne Lord Curzon had come back into his own, a little higher in the Peerage and more powerful as a diplomatist, since Mr. Lloyd George was no longer there to outshine his majesty. The old system of diplomacy meant the old system of bargaining

and barter, with none of Mr. Lloyd George's ideals of bringing Europe to health and the millennium to humanity. In other words, Mr. Lloyd George's idea of Peace with a capital P, had been translated into the Conservative idea of an "oiled tranquillity."

In the second place, the diplomatists had learned their lesson at Genoa and the Hague, and were resolved to present a solid front, as far as oil was concerned, in the face of such a slippery customer as the Turk. This necessitated some conversation with Signor Mussolini, the Fascist Premier of Italy. To anyone who cared to examine the physiognomy of this new Dictator it would have been apparent that Signor Mussolini was bound to demand a share of the Allies' oil for Italy. The San Remo Agreement, in partitioning the oil-fields of Mesopotamia, had unwisely left Italy out of account. As a patriot, Signor Mussolini would see to it that the Italy which had shared in the victory, should participate in the spoils. Had not the United States voiced the same frankly burglarious principle? The British Government had already conceded to the United States that it had no disposition "to dispute the American proposition that the United States is entitled to rights in mandated territories as a result of the joint American and Allied victory over Germany and her allies, including Turkey." There was, in fact, perfect agreement for the time in commercial principle between London and Washington—

at the expense of London. The British Government had long ago advised its commercial partners that Standard Oil must be admitted into the Turkish Petroleum Company. It will be recollected that this matter was discussed between Standard Oil and Sir John Cadman on the latter's visit to America in the fall of 1921. The first proposal for the redistribution of the existing holdings (Anglo-Persian 50 %, Royal Dutch-Shell 25 % and French 25 %) had been to assign Standard Oil 20 %, the other shareholders giving up shares pro rata. This did not at all please the Royal Dutch-Shell and the proposal was subsequently modified.[1] But the important fact to seize, in order to understand the first Lausanne Conference, is that the Allies had agreed upon their share in the Mesopotamian oilfields and that America had been pacified by the admission of Standard Oil into the fold of the Turkish Petroleum Company. No explicit announcement was made, but in his final speech at the Conference Lord Curzon stated that "negotiations have been proceeding to associate the interests of other countries and other parties in this concession (the Turkish Petroleum Company) so that all those who are equally interested may have a share." So the Allies and the United States entered the first Conference solidly interested in the oilfields of Mesopotamia.

What exactly was the part that oil was called upon to play? One must not exaggerate its

[1] See p. 191.

influence, for it was only one of the many new-old problems that the diplomatists had to solve. There was the problem of Turkey's European frontiers, the problem of the capitulations, the problem of the Straits, the problem of the Ægean Islands, and the problem of the Asiatic frontiers. It is in this last that the oil question is firmly embedded.

To put it briefly, Ismet Pasha, the Turkish Delegate at the Conference, demanded the return of the three provinces of Mosul, Sulaimanieh and Kirkuk, really because Turkey wanted the oil-fields, technically because these three provinces sent Kurdish representatives to the Angora Assembly and were Turkish (*sic*) on ethnographical, historical, economical, strategical and possibly other grounds. There was really no other issue to this problem of the Asiatic frontiers. Popular opinion of the Conference was aptly expressed in the contemporary cartoons. In one French paper appeared a sketch entitled "Les Appétits: le véritable question d'Orient." Diplomatists are seated round a table in the centre of which lies a large "bidon" of petrol, and hovering over it three horny-fingered hands labelled "Royal-Dutch," "Persian Oil" and "Standard Oil." In another paper is a picture "Sur le lac de Lausanne." The lake is a lake of oil, a "bidon" of petrol floating thereon and, above, the flags of the nations, France, England, America, Turkey, and Russia. *L'Œuvre* displayed a headline: "Europe for the Europeans and oil for the Americans."

To add further colour to the picture the papers wrote up the claim of the heirs of Abdul Hamid to the oilfields of Mesopotamia. The twenty-two princes and princesses of that monarch had somehow made an agreement in 1918 with one Captain Bennett by which all claims arising out of the personal property held by Abdul Hamid were turned over to corporations organised to promote and realise them. Part of this personal property included the oilfields of Mesopotamia. Captain Bennett conservatively put their value at two hundred millions sterling, and, supported by an American attorney, Mr. Untermeyer, went to Lausanne to uphold the rights of the twenty-two princes and princesses. Nor was he afraid of accusing his Government at Washington of being influenced by Standard Oil, which, he declared, had tried and had failed to come to an agreement with the said twenty-two princes and princesses. "Will the Standard Oil Company deny," asked Mr. Untermeyer, "that their agents were for months in Constantinople trying to get from these Turkish heirs the titles that they are now seeking to dispute? Or that their President when in Europe last summer was negotiating for the purchase of these same rights?" Because Standard Oil failed to acquire these rights, the Washington Government, said he, had been persuaded to preach the gospel of "the open door." Seeing that the National Assembly at Angora was bound to make short shrift of the rights of Abdul Hamid, one cannot

believe that Captain Bennett and Mr. Untermeyer felt at all certain that their claims would be heard at Lausanne; but they must have felt certain that they would cause some little trouble.

But were the claims of the twenty-two princes and princesses any more frivolous than the original claims of Admiral Chester? In a statement to the Press, the Admiral devoutly declared that his "concession" was prior to that of the Turkish Petroleum Company and that it contemplated the construction of a railroad to connect with the Bagdad Railway which would run through the Mosul oilfields. Whatever the merits of this claim, Admiral Chester must have felt equally certain of causing trouble. Meanwhile, as the Conference went on, representatives of the Turkish Delegation were sent to London to offer oil concessions in the Mosul area to British interests. The Allied and American Governments must have been more than satisfied that they had settled for the time their oil interests beforehand.

Could anything be more sordid than this accompaniment to the return of the old system of diplomacy? The vulgar cartoons hardly adulterated the truth. The claims of humanity were urgent. The burning of Smyrna was being followed by the wholesale flight of the terrorised Christian population, not only from Asia Minor but from Thrace. Yet when each of the Big Powers might have considered what doors they could open to these refugees, they declared only the principle of th

economic "open door" in mandated territories. The United States, whose immigration laws debarred the refugees from entering the "Great Republic," actually went out of its way to enumerate its principles of trade, its principle of equality for the dollar, Standard Oil, and the like.

America was, according to her usual policy, represented at the Conference only by an observer, Mr. Richard Washburn Child, her Ambassador at Rome. There was some truth in what was said at Washington regarding Mr. Child's position: "He can't vote, but he can veto." Like President Harding himself, he was the mouthpiece of Mr. Secretary Hughes' business administration, and he was there to prevent any economic advantage going to the Allies, who, unlike the United States, had actually fought and defeated the Turk. Mr. Child accordingly voiced Mr. Hughes' policy of "the open door." There has been some misunderstanding of Mr. Child's interpolation in the counsels of Lausanne. It has been popularly supposed to represent the American interest in Mosul oil. That is hardly exact, seeing that Standard Oil had already been satisfied by admission into the Turkish Petroleum Company. The statement of Mr. Child was, in fact, submitted to Lord Curzon first, who expressed his approval at the time of its presentation. The French also concurred. The statement said in effect: "It is not felt that agreements previously made in respect of Turkish territory which provide for the establishment of zones

of special commercial and economic influence, such for example as the Tripartite Agreement of 1920, are consonant with the principle of equality of economic opportunity. It is assumed that the Allied Powers will not now desire, and do not intend to carry into effect previous arrangements of this nature . . . . The United States has no intention of seeking for itself or for its nationals a position of special privilege, but it is desired to protect its rights and to assure the open door." There was no oil move in particular behind this declaration of economic policy. Here at Lausanne was a return to the old system of diplomacy. If the process of bargaining and barter were to begin again, all the United States desired to emphasise was that they were in it equally with the Allies. That was agreeably straightforward. The only criticism which other Americans have made was that there were those thousands of refugees in Thrace and Asia Minor with no "open door" to turn to.

As everyone knows, the controversy over these northern provinces of Mesopotamia dragged on through the weary months of the first Lausanne Conference. Lord Curzon was immovable on three points of honour—our pledge to the Arab nation, our pledge to King Feisul, and our pledge to the League of Nations. "It is supposed," said Lord Curzon, "that the attitude of the British Government in regard to the retention of Mosul is affected by the question of oil. The question of the oil

of the Mosul vilayet has nothing to do with my argument. I have presented the British case on its own merits and quite independently of any natural resources that may be in the country. I do not know how much oil there may be in the neighbourhood of Mosul or whether it can be worked at a profit or whether it may turn out after all to be a fraud." One can well believe the Foreign Secretary, when he declared that he had never spoken to an oil magnate. One can also believe Mr. Bonar Law when he said (November 23rd, 1922): "We do not want to stop in Mesopotamia for any oil that is there. Our system of Government does not lend itself to getting advantages for ourselves in countries which are in that way under our control." No one doubts the sincerity of Mr. Bonar Law's wish "that we had never gone there," but how far was British interest in Mesopotamia in the past actuated by considerations of the national oil supply? There is the evidence of the reconstitution of the Turkish Petroleum Company forced through by the British Government early in 1914. There is the evidence of the Sykes-Picot agreement which, because it did not include Mosul in the British zone of influence, was subsequently altered by correspondence between Sir Edward Grey and M. Paul Cambon to effect that valuable addition to the "confines" of Mesopotamia. There is also the evidence that during the war the British authorities spent large sums in permanent works which were far beyond military necessities. Sir

Arnold Wilson, before he disbursed the money of the Anglo-Persian Oil Company from a palace at Mohamarrah, was incurring a considerable expenditure of British funds as Civil Commissioner in Iraq. Cotton-growing, agriculture, and the like are hardly the sole incentives for an expenditure of Mesopotamian scale. History has shown that a British occupation of the country (a guarantee of British protection) makes oilfield work a much safer and less hazardous occupation. The fact is that on the one hand the occupation of Basra was essential for the protection of the oilfields and pipe-lines of the Anglo-Persian Oil Company in Persia, and that on the other hand, the occupation of Bagdad and possibly northern Mesopotamia was equally essential for the protection of that portion of the Anglo-Persian (D'Arcy) concession which overlapped the Mesopotamian kingdom at Mandali. A glance at the map will convince anyone (oilman or no) that the British Government, apart from its political pledges, must have felt itself bound to Iraq by the concessions of the oil-producing company which it controlled. Strangely enough, this point was proclaimed for all who had sense to understand actually before the Lausanne Conference was finished. While the dispute was raging over Mosul, the Anglo-Persian Oil Company had been quietly drilling at Mandali under the rights of the D'Arcy concession which the new Iraq Government had reconfirmed as a matter of course. On May 25th oil was struck and it was

demonstrated that the oil belt of the Persian fields extended to, and was productive in, the confines of Mesopotamia and the D'Arcy concession. As if it were to advertise the fact that the Anglo-Persian Oil Company would on that account require British protection in Iraq, the well caught fire, blazed away, and destroyed a quantity of oil. Yet the event passed almost unnoticed by the political observer. To the oil man it was obvious that Mandali oil might never be carried to the coast without British influence in Iraq.

The first Lausanne Conference closed with doubtful prospects of peace in the Near East. Lord Curzon had not obtained agreement on the northern boundaries of Iraq, and it was eventually decided that if Great Britain and Turkey could reach no settlement on that question within nine months, it should be submitted to the League of Nations, presumably for arbitration. The Turkish objections to the Treaty were finally centred on the economic clauses—to the discomfiture of France—and a second Conference was called to meet in April to consider the payment of Turkey's pre-war debt, the validating of pre-war concessions, and the judicial procedure to be substituted for the capitulations.

In the second Conference oil played a minor rôle. But even so unanimity among the Great Powers was not maintained. On the eve of its assembly it was announced that the Angora Government had actually approved the so-called Chester concession. A con-

vention had been concluded (April 1923) between the Turkish Ministry of Public Works and the Ottoman American Development Company (the Chester concern) which, besides calling for the rebuilding of Angora and other things alluring to Turkish pride, gave the right of construction of certain railways and ports with the grant of exclusive mining rights within a margin of 20 kilometres on each side of the railway lines. The railways comprised five routes, one of which—from Sivas to Mosul, Kirkuk, and Sulaimanieh—encroached upon British mandated territory and threatened the Mosul oil rights of the Turkish Petroleum Company. The threat was not regarded seriously, except by Admiral Chester. No doubt this concession seemed a good opportunity to those successors in diplomacy of Abdul Hamid of playing off the Great Powers against each other on the eve of the new Conference. Towards the close of the Conference they actually succeeded. Discussions had raged long over the principle to be applied to the pre-war concessions which the Turks disputed—the French Sivas-Samsun railway agreement of 1914 and the concessions of Vickers-Armstrong and the Turkish Petroleum Company. When it had finally been agreed between the Powers and Turkey that these parties were either to be granted new concessions or compensation for the old, the American observer, Mr. Grew, intervened on the specific instructions of his Government, and caused Ismet Pasha to go back upon his word in the case of the

Turkish Petroleum Company. Mr. Grew re-affirmed that his Government did not admit the validity of that company's concessions, that it was based solely on a letter of the Grand Vizier of the Ottoman Empire which could not confer a valid claim or bind the present Turkish Government. Indeed, his Government advanced the subtle plea that as the concessions concerned Mesopotamian territories now incorporated in the kingdom of Iraq and outside the jurisdiction of Turkey, any confirmation of it must be outside the scope of the Treaty of Lausanne. Are we to infer that Mr. Secretary Hughes was in this case voicing the claims of Admiral Chester, and not Standard Oil? That would be too great an assumption. It appears that the British representatives were seeking to obtain formal recognition in the Treaty of the pre-war rights of the Turkish Petroleum Company in order to refute once and for all the criticisms of its validity. The American observer suddenly woke up to that intention, and, remembering his Government's original attitude (in 1920) of refusing to recognise this Company's concession, cabled Washington for instructions. Mr. Secretary Hughes is an upright and unbending lawyer with a logical mind. He saw that if he agreed to the British proposal he would be open to a charge of inconsistency, of having gone back on his principles to suit the present interests of Standard Oil in the Turkish Petroleum Company. So he stuck to the 1920 formula of "no validity," appreciating no doubt that Standard

Oil was safely entrenched in the Turkish Petroleum Company and would not be upset, any more than the British, by an American observer's somewhat formal intervention. Possibly a display of doctrinaire independence by Washington suited Standard Oil's game. The outcome of it all was that no mention was made in the Treaty of the Turkish Petroleum Company's case. The Company's concession remained unaffected, Standard Oil was undisturbed, but Mr. Secretary Hughes had won a little diplomatic point over the British. The Turks had more reason to be pleased than anyone. The Powers had lost their moral opportunities. And once again oil had marred an international conference.

PART IV

POLITICAL PRINCIPLES

CHAPTER XVII

POLITICAL COMPLEXITIES

It is recorded that Lord Cowdray once remarked to the late American Ambassador, Walter H. Page, that what England and America agreed to do, the world would have to do. This is at any rate true of the world of oil. The vital point is that, unless these two countries do agree upon a common principle for oil affairs, there will be serious political trouble in the future. The reason is not far to seek.

Study the map and observe in what countries the world's oil reserves lie—outside America. The political control of the world's production to-day is very different from that of the world's future oil resources. The contrast is best seen tabulated thus :—

Percentage of World's Present Output of oil. (1922 figures.)	*Country exercising political control.*
66 %	United States.
21	Mexico.
3½	Russia.
2¼	Persia.
2	Holland (Dutch E. Indies).
2	British Empire.
3¼	16 other countries.

Percentage of World's Reserves of Oil. (Mr. Eugene Stebinger's estimates.)[1]	*Country exercising political control.*
32%	Central and S. American Republics.
15	Former Russian Empire and Turkey.
13	Persia and Iraq.
12½	United States.
7	Dutch East Indies.
6	British Empire.

Mark that 60 % of the world's oil reserves lie in the Central and South American Republics, the kingdoms of the Middle East, and Soviet Russia. They lie, in other words, in countries where Governments are none too stable, where political or economic principles are none too fixed, and where the Chancelleries are none too easy to get on with. They lie, too, in the world's most inaccessible regions. There is not a producing oilfield in South America, with the exception of the Peruvian and some Argentinian, which is in close proximity to deep-water ocean ports. The Middle East yields no oil which has not to be piped for hundreds of miles to the coast. Moreover, consider where these oilways run. From an economic point of view the oilway out of the oilfields of Northern Persia, which slope towards the southern shore of the Caspian Sea, is by seaway to Baku and thence by pipe-line to Batum on the Black Sea.

[1] Anyone else can give just as good an estimate of resources as Mr. Stebinger, for it is all guesswork, but these serve to show approximate relative proportions.

Here the oil pioneer is involved with Soviet Russia. The oilway out of Mosul is possibly by pipe-line laid through Syria, which cannot remain French mandated territory indefinitely or amenable always to San Remo agreements. The oilway out from the oil deposits of Turkish Asia Minor—in the vilayets of Erzerum, Bitlis and Van—is by pipe-line to the Mediterranean, as far as Bitlis and Van are concerned, and by pipe-line to some Black Sea port as far as Erzerum is concerned. Here the oil man has to deal or bargain with the Angora Government. The oilway out of Southern Persia, as everyone knows, is the pipe-line to the Persian Gulf which the Anglo-Persian Oil Company bribes the Baktiari hillmen to protect, quite apart from its financing of the Persian Government. Almost at every step there are pitfalls. One begins surely to appreciate, in the shadow of the political complications of the age, in the natural inaccessibility (both economic and political) of the countries owning the production of the future, the paramount importance of England and America reaching some agreement for the application of the universally "open door."

To say that since 1859 the United States has supplied the world with the bulk of its oil products is tantamount to saying that in the main the oil production business has been allowed free commercial development, has even been politically and socially encouraged. The political climate of America has suited its peculiar nature. But other countries, other climates. Nowhere else has

the oil industry such freedom from political restrictions. There are legal and financial policies favoured by some nations that present rather alarming complexities. A tendency, for example, is fairly well developed towards the nationalisation of oil deposits, or sub-soil rights. When that tendency finds expression in confiscation without compensation, it is called Bolshevism. Soviet Russia, was not, as a matter of fact, the prototype as far as oil is concerned. The honour is due to Mexico, which, under the regime of President Carranza, plainly demonstrated that human genius is destructive. It has been said that whatever President Carranza wanted he took. He took the railways, the tramways of Mexico City, the specie of two of the great banks, and because he could not take the oil from producing wells of American companies without offending the legally-minded Government at Washington, he amended the constitution to enable him to do so legally. In February 1917, the Carranza constitution was adopted. Its Article 27 declared that "in the nation is vested *dominio directo* . . . . petroleum and all hydrocarbons," and further that "the amount fixed as compensation for the expropriated property shall be based on the sum at which the said property shall be valued for fiscal purposes in the revenue offices . . . . plus ten per cent." This latter provision meant that oil lands worth hundreds of millions of dollars could be expropriated for a few thousand pesos (plus ten per cent), at which nominal figure they

had been assessed for tax purposes in the revenue offices. Now, was the effect of Article 27 to be retroactive? If so, what is the value of American oil properties in Mexico? President Obregon has been trying hard not to give himself away. He cannot but love the oil industry as an excellent source of revenue, but he has the Presidential elections to consider, and as a good Mexican he cannot behave as a good American oil man. The new petroleum law which he has introduced was intended to be a compromise, but leaves the position uncertain and insecure.[1]

Now, an example is contagious. Similar complications might easily arise in the South American Republics where oil reserves lie.[2] The tendency

[1] It confirms concessions lawfully secured before June 1, 1917, provided the owner of the fee simple had actually started work thereon or made a contract for that purpose before that date, but it defines a concession as one which "will not exceed 2,000 hectares," enacts that the "confirmation" shall be a new contract with the Government upon such terms as the Government may impose, and requires the concessionaire who is not a Mexican citizen to renounce his right to the protection of his Government as a condition precedent to "confirmation." Clearly this was vague and objectionable, and in May 1923 a joint Commission of American and Mexican representatives met in Mexico City to consider a solution of the problem. It was reported in August that an agreement had been reached and that new Presidential decrees would make Article 27 harmless. Soon after, the Obregon Government was recognised by the U.S.A.

[2] Ownership of the oil in the ground rests in the Government in Bolivia, Costa Rica and Venezuela, and in part in Argentine, Colombia and Ecuador; while movements to vest oil rights in the State are in progress in Colombia and the Dominican Republic.

has already spread (whether from Mexico, or from Karl Marx, or from Mr. Sidney Webb, who can say?) to Roumania, whose Government, having nationalised the sub-soil, without mention of compensation, has somewhat disturbed the oil interests. And the Russian complexity remains, robbing the world of about five million tons of oil a year. What can be expected of the new Turkey? Already the National Government claims oil property rights for the State. What Oriental reaction may follow upon the Western education expensively taught to the pupil kingdoms of the Middle East by the British and French schoolmasters? What, indeed, when one of the schoolmasters is setting a somewhat dangerous example! France is proposing[1] to discriminate against the foreign oil interest by compelling importers of refined petrol (that is, the foreign refiner but not the French) to mix French manufactured alcohol with their spirit to the extent of ten per cent. before clearance from bond. France is really imitating China, which has turned away the foreign interest from the business of oil production so completely that no oil at all is there produced.

There always are difficulties of a financial nature, into which, we may believe, the oil interests would fain drag their Governments. One hears the voice of Sir Henri Deterding crying out that the oil production business in the Dutch East Indies is no longer profitable. Has not the East Indian

[1] *Projet de loi sur le régime intérieur du pétrole.*

Government been increasing the export taxes on oil since 1905? Did it not ask the Royal Dutch Petroleum Company, after paying Fl.39,000,000 in 1921, to pay another Fl.53,900,000 on a production of 3,000,000 tons? One hears, too, the proud tones of Sir Charles Greenway disclosing royalties paid by the Anglo-Persian Oil Company without comparison in the oil world. Did not his company render unto the Shah in 1921-22 a royalty tribute of £553,795 8*s*. 4*d*., whereas in British Trinidad royalties on the same quantity of oil would have been £117,000, in Mexico £417,000, and even in the United States less than £500,000? [1] And, of course, one hears nothing but a chorus of protesting indignation from the oil interests in Mexico at the Presidential attempts to balance the national budget. In 1917 Carranza had decreed the first export taxes: in July, 1921, President Obregon increased them by 60 %. [2] The American oil companies thereupon went on strike, having previously filled up their storage tanks in Mexico and the United States, and remained out on strike

[1] Sir Charles Greenway's speech to shareholders at the Annual General Meeting, December 11, 1922. In the year in question the production was 2,327,221 tons, which brings the royalty to 4*s*. 9*d*. a ton—not so excessive compared with the 16 % royalty payable to the Iraq Government by the Turkish Petroleum Company. The royalty paid by the Anglo-Persian Oil Company varies according to the profits.

[2] President Obregon's first compromise was to allow the oil companies to pay in depreciated Mexican bonds at their face value. His final was to fix a small export tax with a production tax sliding on New York prices.

for about three months until the President showed signs of compromise.

Nor is the oil man happy over conditions in some countries of civilised Europe. The Roumanian Government has now defined its policy of whole-hearted interference in the administration of the oil industry. It fixes the prices at which refined products may be sold (these are still below world prices), it regulates the quantities which must be supplied to the domestic markets and the quantities which can be exported, and having raised the export taxes to disconcerting heights it compels the exporter to pay in the currency of the importing country instead of in the depreciated leu. Perhaps this is but a diluted foretaste of what the Soviet Government has in store for foreign oil-producers in re-habilitated Russia.

Though we contrast these restrictive elements of certain national policies, legal or financial, with the free economic atmosphere of the United States, let it not be imagined that we advocate interference by one country in the domestic affairs of another. Countries, like individuals, must be left to work out their own salvation. If one's neighbour chooses to nationalise his sub-soil, to impose crushing taxation on the oil product, he must be left, without diplomatic pressure, to realise that it does not pay to kill the geese that lay the golden eggs. Admittedly it is difficult to find a happy definition of what constitutes interference in the domestic policies of another

country, but the history of Mexico will, at any rate, illustrate the opposite of this "golden rule."

Lest we offend in mentioning interference in affairs across the Rio Grande, let us merely quote the editor of a New York journal: "There has not been a single disorder in Mexico in the last nine years in which Americans have not given support to the anti-Government side. . . . Americans helped Madero against Huerta, Huerta against Madero, Carranza against Huerta, Villa and Zapata against Carranza." Indeed, whenever the Mexican Government acts in opposition to the interests of the big American oil companies, it is safe to anticipate revolutionary activity. It is true that in 1913, when Huerta displaced Madero, the Washington Government was persuaded that British interests (or Lord Cowdray) had instigated the revolt in order to turn the tables on Standard Oil—to make safe their concessions obtained from Diaz, and to obtain still more from his avowed successor in dictatorship. But the late Walter H. Page wrote to Colonel House: "I have a suspicion (tho' I don't know) that instead of his (Cowdray's) running the Government, the Government has now turned the tables and is running him." And Sir William Tyrrell apparently convinced President Wilson later that the "oil interests" were not dictating the policy of so "high a character" as Sir Edward Grey. American interference, on the other hand, was certainly marked in the days when Carranza issued a series of decrees giving

effect to that "perfidious" Article 27.[1] "The National Association for the Protection of American Rights in Mexico"—an ominous title—came into full-blooded being and directed a great campaign of propaganda, in which the Hearst newspapers figured in the lead, against the Mexican "terror." There was talk of military intervention. The Washington Government formally protested against the "infringement of legitimately acquired American property rights." The American oil companies constituted themselves into an "Association of Petroleum Producers in Mexico," and, backed by their Government, openly flouted the Carranzist decrees. The Republican administration came into power with rumours of military concentrations on the Mexican border. The appointment of Senator Fall to a ministerial position made sure in the Government of at least one ardent champion of intervention. Small wonder that when the American companies in 1921 "downed drilling tools" in protest against the export taxes of President Obregon, the Washington Government despatched a cruiser and a gunboat to Tampico harbour to join Mr. E. L. Doheny's yacht in waving

[1] Carranza's first decree was to order owners of petroleum lands to "manifest"—that is, to make lists of their properties and file them in certain offices—declaring that the owners would only be permitted to operate if they consented to pay rentals and royalties. The next, when this failed, was to authorise public offices to receive "denouncements," which means "locations" on petroleum lands. Any owner whose land had been denounced was not to receive drilling permits.

the American flag of defiance. All this was precisely the kind of interference and flurry that a nation professing the loftiest international principles might well have avoided.

The United States and Great Britain should therefore agree upon this primary principle—to leave their oil interests to fight their own battles, legal or financial. "What the devil," wrote the late Walter H. Page, "does the oil or commerce of Mexico or the investments there amount to in comparison with the close friendship of the two nations?" The oil interests are quite capable of looking after themselves. Let Governments learn wisdom from the battle royal that has been waged by the Royal Dutch Petroleum Company against "the fatal fiscal policy" of the East Indian Government. The Company in 1922 stopped drilling on about ten oil-fields. It reduced its European personnel. It kept back European goods that would normally have been sent to the Indies. The "cracking" plant ordered for the refinery at Balik Papan was not forwarded. The candle-works were transferred from Balik Papan to Shanghai. And so on. The Company warned its Government that it could get its oil elsewhere if it did not pay to get it in the East Indies. It seems that the Dutch Government has already learnt its economic lesson that increasing the taxation does not necessarily mean increasing the revenue.[1]

[1] As we write, the Dutch Minister of Colonies has tabled Bills in the Second Chamber of the States General providing for the

Perhaps some day the Mexican Government will wake to find that the American oil companies have decamped, taking their drilling tools to less expensive tropics. Perhaps some day the Roumanian Government will be confronted with a strike among its oil geese and look in vain for golden eggs. But other Governments, jealous of international amity, will be wise to let domestic oil fights alone. If political restrictions be disturbing to the oil industry, it merely serves to emphasise the need of stating correctly and applying equitably the few political principles which should govern international oil relations.

It is not that we advocate any extreme of international *laissez faire*. There are some who argue that the oil resources of Mosul must not be developed because they are the property of the peaceful Kurds, who dislike industrial disturbances. That is surely excessive sentimentalism. "Development," for which human industry is waiting, is not necessarily that "exploitation" with which the sentimentalist endeavours to catch public sympathy. Commercial greed may be bad, but laziness and lack of initiative are no better. Are the oil-fields of the world to lie dormant because the native inhabitants above prefer to graze their flocks, or turn a few sods for growing crops? It

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abolition of the export duty on oil and oil products from the Dutch East Indies as from January 1, 1923, and for the levy of a tax on oil, crude and refined, for one year only in substitution of the income tax which is to be revised by January 1924.

is not unreasonable to bring the diplomatic arts to bear upon countries with dog-in-the-manger policies which neither develop nor allow others to develop their oil resources. But that, again, emphasises the importance of having certain principles regarding oil agreed upon and practised by America and the British Empire.

CHAPTER XVIII

THE "OPEN DOOR"

THE principle of the "open door" has been the text of many a political sermon, but an exact idea of its meaning is not to be found, and no country really practises it. The United States has often taken it to mean opening a door to Standard Oil, Great Britain to mean letting things remain as they are but keeping an open mind for the future, Russia to mean opening the doors of private properties. Practically every country has a clear-cut plan of applying the principle to other countries, but no idea of applying it at home. That the United States and the British Empire should reach some agreement as to its meaning and application is important, not only for the world's material needs, but we believe also for its political peace.

What does the principle imply? It is, in a sense, a political rendering of the private virtue of generosity, or rather the political recognition that generosity pays. In other words, it may be regarded as an oil version of the doctrine of free trade. Primarily it means that you should not exclude the nationals of other countries from operating in your home-fields. As a corollary of that, it

implies that you should let foreigners operate on the same terms as your nationals, giving your nationals no privileges, no monopolies, no exclusive agreements. Indeed, the essence of the principle is equality of opportunity. It is as though mankind were thirsting for the oil hidden by nature and some apostle of humanity were to affix a notice-board to the world's oilfields reading: "Come in, all of you, and help. In the sight of this board all of you are equal." This principle is, of course, wholly foreign to American traditions. The policy of free trade in anything is not one with which the United States is very familiar. In its shipping laws it is definitely against freedom of trade. But in oil it has chosen, with inconsistency of principle, to adopt it in the main. How unfortunate that neither the United States nor the British Empire is in the moral position to broadcast that call to others!

The United States has been particularly fond of exposing the delinquencies of the British Empire in this matter. It has recently done it, with due official pomp, for the second time through a report by the Federal Trade Commission.[1] In neither case has it been done pleasantly or accurately. Both in the 1920 Report—"regarding the restrictions imposed upon citizens of the United States

[1] Report of the Federal Trade Commission, submitted to the Senate February 12th, 1923, on Foreign Holdings in the Petroleum Industry of the United States in accordance with Senate Resolution 311, introduced by Senator King, of Utah.

in prospecting, acquiring and developing petroleum lands abroad"—and in the 1923 Report—"on foreign holdings in the petroleum industry of the United States"—official use was made of two forgeries. "American oil companies," it reads, "are expressly excluded from doing business in Burmah by a proclamation signed by Queen Victoria and Lord Salisbury, Secretary of State for India, on September 24th, 1884, and a blanket concession of ninety-nine years was given the Burmah Oil Company, Limited, on August 23rd, 1885, protecting this company from all foreign competition." One would have thought that in the libraries of Washington were history books that could have told the Department of the Interior that Lord Salisbury was not Secretary of State for India in 1884 and 1885. Yet the American Secretary of State did not announce to the world's Press until March 25th, 1923, his receipt of information that the proclamation and the agreement were spurious. Mr. Hughes has now officially "accepted" the British Government's word, and, "as the documents are not authentic," has requested his Department "to make no use whatever of them." But is it not curious that this request was not made or proclaimed for nearly two years—until after Mr. Albert Fall had vacated the office of Secretary of the Interior? Mr. Fall had made on many occasions such telling use of these forgeries that one may suppose their work was done and that their falsity, like that of some False Decretals of the ninth

century, could now be admitted without hurt. Yet what need was there for telling lies, when by telling the simple truth the charge against India could be fairly proved? This extraordinary official pantomime can only prejudice the American case and lessen the chances of an Anglo-American understanding.

Admittedly the British door is closed to many intents and purposes. Lord Curzon, in his despatch to the British Ambassador at Washington, of April 21st, 1921, has confessed quite enough. Of India, he said, "Prospecting or mining leases have been, in practice, granted only to British subjects or to companies controlled by British subjects." In the name of truth, what more did Mr. Fall want? Of the Crown colonies, Lord Curzon said—

Trinidad: "In the case of private lands there is no nationality restriction, but the lessees of Crown or alienated lands must be British subjects or a British controlled company."
British Guiana, British Honduras, Nigeria and Kenya Colony and Brunei: "Similar regulations to Trinidad."
Barbados, Somaliland, Sarawak, British North Borneo: "No nationality restrictions (but a dock agreement has been made in Barbados with a British oil company on condition it remains British controlled, and Sarawak is largely given over to the Shell; and Somaliland and British North Borneo have no production)."

Lord Curzon, after quoting the Dominions, whose policy he does not control, argued that here

was no "general policy of exclusion of foreigners," and at the same time contended that "with no nationality restrictions, it would have been feasible for an isolated oilfield, such as Trinidad, to be taken up by German companies and worked with German personnel, with the result that on the outbreak of war the wells and plant might have been rendered useless and the supplies of oil from this source cut off for months." Does not this singularly unconvincing apology border on self-contradiction? The latter argument is particularly strained, for the supplies of Trinidad are relatively insignificant. And seeing that the nationality restrictions are practised (though they may not be preached in the official regulations) in that part of the British Empire whose output of oil alone is considerable, namely in India and Burmah, is it not fair and accurate to say that the bulk of British oil production is closed to foreign companies? India and Burmah account for about 60 % of the total production of the British Empire, and Trinidad for about 20 %. "It has to be remembered," the Curzon despatch laid down, "that when such regulations were first introduced in India and elsewhere, the oil situation was very different from that prevailing to-day. The problem was then not so much to find new sources of oil, as to secure profitable markets for that already produced, and there was a real danger that oil-lands might be taken up by large oil companies and kept unworked so as to maintain prices." It was argued

that the infant Burmah Oil Company needed at that time some measure of protection against the menace of Standard Oil, which threatened to flood the Indian markets with cheap American oil, and so retard the development of Burmah oilfields as well as stunt the growth of Burmah oil companies. But if the situation to-day, when the Burmah Oil Company has survived and prospered into manhood, when the Indian market is needing all the oil it can get, is so very different from then, why, pray, cannot the Indian Government put an end to its practices prohibiting the foreign oil prospector?

Is it not in the interests of the British Empire that these practices should cease? Mr. Beeby Thompson, one of the most eminent of British geologists, once intimated slyly to a gathering of business men in London [1] that the oilfields of the Empire were situate in such naturally difficult and remote regions—"in tropical countries amidst unhealthy surroundings, in undeveloped, often sparsely-peopled or even unpopulated regions, to which plant and men have to be transported thousands of miles"—that they had better seek American help to develop them if they really wanted the oil. A lesson might be learned from Canada, which has allowed a subsidiary of Standard Oil—the Imperial Oil Company—to dominate its oil industry. This open generosity has paid. Canada,

[1] Address before the London Chamber of Commerce, October 1921.

with its known fields declining, is having the frozen fastnesses of its North West territory tested by the drilling bit—at the expense of this foreign company. Commercial production on the Mackenzie River has not yet been reached, and Standard Oil is the loser. But even if it is reached later on, Canada will gain proportionately much more than Standard Oil. Does not the same consideration apply even more strongly to India and Burmah, whose oilfields, after nearly forty years of exclusive British operations, are still unable even to meet the requirements of the country's domestic consumption? The Indian Government has been raising revenue by imposing an excise duty on indigenous kerosene, and an import duty on foreign imported kerosene, which, of course, the consumer has to pay. Would it not be wiser to raise an alternative revenue by allowing American companies to drill in India and Burmah, pay duties on their imported drilling materials, and royalties on oil produced, and so relieve the Indian consumer of the surtax on kerosene? Admittedly, it is greatly to the credit of the Burmah Oil Company that it has consistently sold kerosene, since 1905, at prices below world prices to meet the needs of the poor Indian consumer,[1] but that should not

[1] Sir John Cargill, in his speech to shareholders of the Burmah Oil Company, June 12th, 1923, said that from June 1919 until December 1922 India has saved in her kerosene consumption (by the difference between Indian and world prices) over £22,000,000, of which the Burmah Oil contribution was £16,000,000.

be a substitute for universally low prices that would follow naturally from the practice of free trade in oil. And the British Empire, it seems always well to remember, exists not less for its consumers than for its exploiters.

Australia, too, might learn this lesson from Canada. Not very long ago Australia experienced a mild oil boom on the discovery of some free mineral oil in the Kimberley division in the north of Western Australia. But no commercial production came of it. "In certain of the Australian States," to quote Lord Curzon, "regulations introduced during the war confined the issue of mining leases to British subjects." Now if the door had been opened wide to the American wild-catter, something might have come of it. You cannot have too many drillers seeking oil in unproved deserts. But with odd perversity the Australian Government made an alliance with the Anglo-Persian Oil Company for the construction of refineries in Australia and the importation of Persian oil to keep them going. That would seem to be a final fling at the foreign oil prospector.

"It is becoming increasingly obvious," concluded Lord Curzon, in all piety, "that there is ample scope for the activity and enterprise of all nations in searching for and bringing into use the world's store of petroleum as yet undiscovered." Then throw open wide the doors of the Crown Colonies! Invite inside the foreign oil prospector who is courageous enough to have a fling at fortune.

Give the lead to India to follow suit. Let us see that the policy of the British Empire is not fashioned after the family motto of the Foreign Secretary: "Let Curzon hold what Curzon held."

Experience teaches that the policy of the "closed door" is apt to recoil painfully on the owner. Already this has happened with Great Britain, and the Royal Dutch-Shell group, in which British interests are heavy, has been the one to suffer. The leasing law enacted in the United States in 1920 forbade the acquisition of properties in State oil-lands by the nationals of any country that denies reciprocity to Americans. Let us give the American statement of the case for reprisals:—

> "The most important instances of discrimination by foreign Governments against citizens of this country are the exclusive policies of the Governments of Great Britain and the Netherlands in respect of the oil-fields of India and the Dutch East Indies, and the 1920 San Remo Agreement of Great Britain and France covering the undeveloped oilfields of Mesopotamia and of the British and French colonies.
>
> "Denial of reciprocity of treatment to citizens of this country appears to exist with respect to the petroleum industry of Australia, British Honduras, British Guiana and the Netherlands and its dependencies.
>
> "Thus forced to modify its historic policy, Congress in 1920 enacted a mineral leasing law . . . in consequence of which certain applications for petroleum leaseholds have been denied to the Royal Dutch-Shell Group."

This is merely the beginning. The popularity of oil reprisals grows apace in the United States. Its latest expression is the introduction in the Oklahoma State Legislature of a Bill to prevent foreign corporations or individuals owning or operating oil-lands in the fields of Oklahoma. The most important foreign corporations operating there are, of course, the subsidiaries of the Royal Dutch-Shell, and if the Bill becomes law, the property of these companies would have to be disposed of within twelve months. True, this is not the first time that a Bill of this nature has been introduced in the Oklahoma State Legislature, and even if this present one succeeds in passing, the Federal Courts may not uphold it. But it reflects the ugly situation that is brewing.

Do the British holders of the stock of the Royal Dutch and the Shell Transport and Trading Companies realise what it may cost them to maintain the policy of the British "closed door?"[1] In their interest, having regard to dividends, as much as in the interest of the consumer of oil, having regard to price, it were advisable to make a change. To make conditions of prospecting in the difficult and generally remote fields of the British Empire as

[1] The Royal Dutch-Shell interests, controlled through the Shell-Union Corporation, include the Simplex Refining Co., the Southern Shell Steamship Co., Gold Shell Steamship Co., Pearl Shell Steamship Co., Asiatic Petroleum Co. of New York, Asiatic Petroleum Co. of Delaware, Roxana Petroleum Co., Ozark Pipe-line Co., New Orleans Refining Co., Martinez Oil Co.

free and enticing as possible, could not fail to redound to the benefit of the British people. This is the kind of generosity that pays.

It is not that we would by any means excuse the action taken by America. Indeed, we would not admit that a policy of reprisal is ever sound, or fitting for enlightened peoples. And the direction of such a policy by the heavy hand of Mr. Albert Fall was to put it at its worst. It has been said that, since the enactment of the Mineral Leasing Law, eagerness to discover discrimination against the United States and readiness to accept irresponsible testimony to that effect has been more than once perceptible where Mr. Fall was concerned. Certainly he did not scruple to support his refusal to grant to the Roxana Petroleum Company, subsidiary of the Royal Dutch-Shell, the lease of certain Osage Indian lands, by the false witness of the two forged documents. One cannot doubt but that the plea of justified reprisal was seized upon as an excuse to change the historic policy of the American open door. The Wilson administration began it and its successor seemed determined to go the whole hog. Secretary Work, Mr. Fall's successor, has, it is true, rescinded the decision withholding the Osage leases from the Roxana Petroleum Company—on the ground that Indian Reserves are not Federal oil-lands—but he has made it clear that he will prosecute the administration of the "reprisals" law with the utmost vigour.

At the time of the last Presidential elections it was announced, as part and parcel of Mr. Harding's principle of the "open door," that international agreements might well be made which would secure complete reciprocity in the development of the world's natural resources. As we understand Mr. Hughes' interpretation, reciprocity between two or more nations can be framed into a reprisal against the unfortunate nations excluded. That, indeed, was the view taken by the State Department of the San Remo Agreement and the Tripartite Agreement between Great Britain, France and Italy. Likewise it is the view commonly taken of the agreement recently concluded between France and Poland, giving most favoured treatment to French oil companies working in Poland. But let it be repeated that the essence of the principle of the "open door" is equality of opportunity for all, not for several. Clearly that primary element of the principle Mr. Hughes' Department long ago disclaimed.

By all who desire an Anglo-American entente, of which the world stands sadly in need, these oil reprisals of the American Government will greatly be deplored. It may be argued on the other side that historically the "open door" was merely the expression of the need for foreign capital to develop the huge resources of the American continent, and that now the capital is available at home, the door might just as well be closed. But we believe that argument to be mistaken. The

policy of the "open door" is from the economic standpoint remunerative at all times and under all conditions. We believe that both the American and British peoples would endorse it for the oil industry. Read, for example, the words of the President of the American Petroleum Institute—the one independent oil opinion in the United States that one can take without discount. He has said:—

> "The petroleum industry of America needs no special privileges at home or abroad, and the petroleum industry of Great Britain needs no special privileges, either at home or abroad, and if both countries will apply that principle strictly in the future, it will never result in friction. . . . No matter what the rest of the world did in this respect, I would still advocate an open door and equal opportunity in the petroleum industry of this country." [1]

Mr. T. A. O'Donnell's practical wisdom is often more enlightened than that of the political erudites of Washington or London. Of the closed door in the British Empire, he says—

> "Such legislative restrictions are not in the interest of active development, and it is just as important, if not more so, to the citizens of Great Britain to repeal such legislation as it is for America."

[1] Address before American Petroleum Institute, November 1921.

Read, too, the words of an independent British geologist. Mr. Beeby Thompson has said—

> "In the development of her (American) oilfields foreigners have equally participated with American citizens, and it is therefore the more remarkable that our Government should adopt an attitude of antagonism to the legitimate and national aspirations of our American friends. The restriction policy we are adopting appears undesirable and is liable to antagonise other nations, and is likely to lead to reprisals sooner or later. We owe a greater debt to America than is generally supposed by our laymen."

Here were two practical men speaking—the practical American oil operator, Mr. O'Donnell, and the practical British geologist, Mr. Beeby Thompson. If they can shake hands so warmly over the oil question, cannot the American and British nations do likewise?

CHAPTER XIX

GOVERNMENT PARTICIPATION

Instead of the American and British nations shaking hands at the sign of the "open door," one has witnessed merely the Standard Oil and Anglo-Persian Oil Companies shaking hands on the back stairs. That was a very different affair—not at all, as we have explained, of the same order of morality—and did not in the least degree prevent the aggressive American from continuing to take reprisals or the possessive Britisher from continuing to keep his doors half closed. Is it not obvious that this wrong, instead of the right, hand-shaking only came about because the British Government had gone into partnership in an oil-producing company?

The question of State trading within the confines of the State is not the point at issue. Not a few Governments carry on oil operations in their own home fields. The Polish Government, for instance, conducts an oil-producing company in Poland. The Roumanian Government has become an oil merchant and makes a goodly profit at the expense of both producer and consumer. The Argentine Government has "Government reserves" in its

principal oilfields which it works with State engineers. How far these State concerns are mismanaged, as business men allege, it is not for us to inquire. Nor whether the principle is good or bad economics. For our British part it is merely objectionable that our Government should control a company whose representatives attend those conclaves of commercial oil men which decide the price of petrol or fuel oil to the British consumer.

Be that as it may, from the political point of view State trading in oil in a domestic way is harmless enough. It is when it comes to trading outside the confines of the State territory that the practice becomes dangerous, converting commercial into national rivalries. The British Government may manufacture cordite not injuriously—in an industrial sense—seeing that there is no explosive commercial competition in the cordite business, but to enter the oil business on an international scale meant pitting the British State against the nationals of other States, not only in producing but in consuming countries.

Take, for example, the marketing subsidiaries which the Anglo-Persian Oil Company set up in France, Belgium and Scandinavia. By that ordinary commercial act the whole British nation was pushed into a fight with a few American and French corporations. In Belgium the Anglo-Persian Oil Company became involved in a deadly price-cutting war, on account of which already one American company has been driven out of the Belgian market.

What desirable copy is this for the anti-British newsmongers in the United States! In France the ordinary activities of the Anglo-Persian subsidiary (Société générale des huiles de pétrole) have undoubtedly served to add fuel to the flames of anti-British propaganda.

It is not difficult to see that the principle of Government participation in the oil business on an international scale would, if it were generally adopted, lead as surely to war as the principle of the "open door" would lead to peace. Assume that it was adopted in America, that the United States Government organised, as some public men have suggested, a Pan-American oil combination in which American capital, energy and powerfulness could be concentrated for the conquest of foreign oilfields. Assume that this Pan-American Oil Combine, directed by a Secretary of State after the pattern of Mr. Fall, lawfully acquired a concession from the Soviet Government on the Siberian coast which the Russian Czar had previously and lawfully given to the Japanese Government, which likewise conducted an oil-producing business. One can imagine an American cruiser meeting in Eastern waters a Japanese cruiser sent on a similar errand of protecting its Government's property. One can imagine a stray shot fired on the oilfields wakening the guns on the warships. Indeed, nothing is too ridiculous to happen if ever the absurdity of State oil prospecting in foreign countries were allowed free play.

Let us take another example. The tide of affairs in France is rising surely to the high-water mark of State monopoly—towards an oil consortium under State control which shall handle all the business of oil importing, refining and distribution. Part of the profits of this official consortium, it is suggested, should be utilised for State oil prospecting in France and her colonies. One can well imagine that when this State concern has driven Royal Dutch-Shell and the rest out of the fields of Madagascar, it will turn, in the flush of oilfield victory, to the oil conquest of other lands which American or British State-trading corporations have already appropriated as their legitimate prey. One can imagine a demand in the French Press for the annexation of all oil countries which do not allow French companies to pay oil reparations to the French nation. The advance in the Ruhr coal-fields may be only a prelude to a greater advance in Middle Eastern oilfields. Nothing is too ridiculous to happen if ever absurdity in oil principles and French militarism go hand in hand.

It can be argued till Doomsday that the British Government does not interfere in the commercial management of the Anglo-Persian Oil Company, that its two representatives on the Board of Directors have merely a right of veto, not a right of initiating commercial action. But the distinction will never be appreciated by foreign countries which harbour any political grudge. For the British Government to be, in some way, connected

with the company is sufficient to give the evilly-disposed critic, American or Continental, an invaluable pretext for attack. That the policy here advocated is not against the interests of British naval power has already been demonstrated. That it is actually in the interests of the Anglo-Persian Oil Company gives it for us, we confess frankly, a special appeal. We would fain see the Anglo-Persian Oil Company thrive more freely and securely. Alas! the presence of its Government partner (sleeping or awake) is in many respects to cause the Company to do the thing it commercially would not, and not to do the thing it commercially would. Certainly diplomatic considerations prevent it from operating in countries whose Governments are likely to bring embarrassment to the British Foreign Office. The Government representatives would perforce veto any proposal at the present time to acquire oil-lands in the United States or Russia, or possibly Mexico and certain countries of South America, however tempting an offer might be presented to the Company. It is said that Government policy, which not infrequently panders to Washington, prohibited a marketing alliance with the Shell group, which economic considerations positively invited.[1] Certainly it cannot be denied

[1] It was "authoritatively" rumoured in 1921 that the alliance of the Anglo-Persian Oil Company, the Burmah Oil Company, and the Shell Trading & Transport Co. had been commercially discussed and agreed upon, but vetoed by the Government representatives.

that the British Government has acquired the unfortunate habit of offering up the Anglo-Persian Oil Company to sacrifice on the altars of diplomacy.

It was, for example, a Government expedient, in the dispute with Washington over the Mesopotamian "monopoly," to quieten American interests with 10 % from the holdings of the Anglo-Persian Oil Company as well as 10 % from the others in the Turkish Petroleum Company. It was, as we have said, left to the commercial interests to agree the precise redistribution of shares. Naturally, the other shareholders objected to this form of diplomatic expediency. The Royal Dutch-Shell group, in particular, failed to see any merit in the first proposal that Standard Oil should have a 20 % interest—10 % from the Anglo-Persian Oil Company, 5 % from the Royal Dutch, and 5 % from the French. Indeed, they failed to see why they should give up anything at all. Contrariwise, Standard Oil failed to see why they should not share equally with Royal Dutch and French and take 25 %. In the end it was again found "expedient" for the Anglo-Persian Oil Company to give up half its 50 % holding to Standard Oil, and to press the other shareholders to give up—nothing. Some other way is being found, it is said, to compensate the unfortunate Anglo-Persian, possibly by giving it a royalty. Whatever it eventually receives, it will certainly deserve. Then it was another expedient—in this case commercial as well as political—to give up 50 % of the Anglo-Persian

Oil Company's 100 % good holding in Northern Persia. Whether that expedient was even commercially wise seems doubtful now that the Persian Mejliss has refused to sanction this 50/50 arrangement, and has offered the concession afresh to purely American bidders in order to secure a loan of $10,000,000. Mr. Sinclair's men, who had appeared on the Persian scene when this dispute began, like vultures scenting a potential carcase, would no doubt get the whole concession if they could satisfy the Persian thirst for ready cash.

In both these cases the Anglo-Persian lamb was shorn, perhaps a little bled, for diplomacy's sake. Moreover, because the company is identified with the British Government, it has been the object of much anti-British propaganda, a fact that accounts for the Persian Government taking action prejudicial to its concession in the northern provinces. Is it too much to assert that the production prospects of the Anglo-Persian Oil Company, far from being guaranteed, are actually endangered, by the presence of its government controller? Says the President of the American Petroleum Institute: "I believe Government participation, either by Great Britain or this country, would retard rather than promote the development of petroleum resources." One rather suspects that the directors of the Anglo-Persian Oil Company are coming round to agree with Mr. T. A. O'Donnell.

Let there be no misunderstanding. For the

Anglo-Persian Oil Company as a commercial enterprize, boldly directed, we have but admiration. For the principle of Government participation in it, we have not a good word to say. Because of it the British Government chose the crooked way of making peace with Washington by bribing Standard Oil at the expense of the Anglo-Persian Oil Company, instead of the straight way of making peace with the American nation by repealing its few restrictive oil regulations and practising the "open door." Let the British Government take heed now, lest it suffer such a worse reprisal at the hands of the United States as an aggressively-directed, State-owned corporation for acquiring foreign oil for America. Let it take warning from the tide of events in France, where the State seems bent on smashing the assumed domination of the Anglo-American oil "trusts," partly because of the taint of the British Government's participation in the oil business. State trading in the international oil business is the devil's answer to the apostle of the "open door."

Let us conclude with this question to the oil industry at large. If the principle of the "open door" were universally practised, if the policy of Government participation or interference in the oil business were conscientiously abandoned, if the development of the world's oil resources were allowed to proceed apace unhampered by any political restrictions, undisturbed by any political upheavals, if, in other words, politics were dictated

by common sense and international relations ruled by the brotherhood of man, would there be any likelihood of a shortage of oil supplies? The chorus of negatives swelling from the general assembly of oil-producers, refiners, shippers, carriers, marketers, and jobbers, would put the politician and diplomatist to shame.

CHAPTER XX

THE GREAT ILLUSION

This latter-day history of oil has been, in one respect, like "The Beggars' Opera"—there has not been a good character in it. It has been a history of improper principles, improper influences, improper moves. The scene has always been the back stairs. The lights have always been shaded. The actors have been wearing masks and cloaks. While we cannot yet, like Mr. Gay, write a sequel, we may fairly claim to have suggested the lines on which a sequel should be written, a moral sequel dealing with proper influences and moves.

And so one reaches the conclusion that the political staging of the oil question is founded upon this illusion about oil power. The popular conception of oil as power is, as we have said, a misconception. To conceive that oil is a thing to be desired to make one powerful, is reminiscent of Eve, who conceived that the apple was a thing to be desired to make one wise. Let us profit by Eve's mistake and become a little more circumspect before further action. And in particular let us mark down the beast, whose subtlety in this oil question has made it play the part of serpent.

Can the possession of oil really bring political power? There appeared not long ago in an oil journal[1] an article under the headline "He who owns petroleum owns the world," which aptly illustrates the fallacy. It quoted the late President Harding as having said, in some election address, that the future of the world belongs to the motor engine, and through that to the owners of its oil fuel. It argued that while a nation possessing oilfields is assured of the development of all its industries and the extension of its commerce, the nation which has the privilege of supplying oil fuel to other nations acquires a dominating power over them; that of two countries, one with access to oil and one without, but equal in other respects, the one without access to oil is at the mercy of the other, both in a commercial and a military sense; and that the most peace-loving nation may be induced to fight for an access to oil, if that access is unduly threatened. Which is all egregious nonsense. Assume, for example, that the United States owns the whole of the world's wheat. She has the "bread power." Does she then acquire a dominating power over all bread-eating countries? Yes, argues folly, she could starve the whole world. But what profit is there in starving your customers? Bread is a commodity to sell: if you starve your buyer, you would merely starve yourself. The same applies to oil. Possession of the oil commodity is useless unless there are people to purchase

[1] *Petroleum Times*, February 24, 1923.

it, to turn it into value. And that rather implies economic freedom than political subjection.

The possession of oil for the waging of war is another matter. A spectacle of force is at the present time being witnessed on the Ruhr. We are told that France is being tempted by a lust for power. Certainly she seems to be falling deeply into the popular misconception of oil power. She is apparently disturbed by the fact of her dependence on foreign oil. So she has concluded an oil agreement with Poland where 70 % of the capital invested in the oil industry is French; she is consolidating her investments in Roumania; she is increasing her interests in foreign oil companies; she is speeding up her home production of oil; and above all she is endeavouring to create a "carburant national" by utilising her alcohol production, and to find commercial means of reducing coal to oil. A Bill, which at the moment of writing has been introduced into the Chamber, sets up a national oil bureau to stimulate the prospecting for oil in French territory, watch over the importation and distribution of the product in France, and direct technical oil instruction, and moreover imposes a tax of ten francs a ton on imports, of which half the proceeds is to be assigned to the creation of a national fleet of oil tankers. But all to what purpose? In the case of Great Britain it has been shown that what matters is command of the seas, not command of oil production, and that a twelve months' supply of oil in storage tanks is all the

fuel required for any power standard. Does not the same apply to France in a military sense? Command of oil production at home, however manufactured, is useless without the military command to protect it from invasion; and stocks of petrol on an adequate war footing would safeguard any standing army with which France may like to out-Prussian Prussia. And in the present condition of the liquid oil industry, France will find it much cheaper to buy American "free" oil to fill its tanks than to manufacture oil substitutes from French coal or alcohol. Cannot the neo-Napoleons of France understand these elementary economic principles? Or is France seriously moved by an idea of complete industrial domination in Europe which the supplies of coal and coke from the Ruhr and Saar seem to promise her, but which dependence on foreign oil seems to bar? In any event, she is pursuing an illusion.

Standard Oil is playing indirectly the part of serpent. Of all the oil beasts in the field, none is more subtle. An article recently appeared [1] from the pen of the chairman of the Board of Directors of the Standard Oil Company of New Jersey, Mr. A. C. Bedford, in which the military or naval illusion of oil power was frankly admitted and deplored. "The great nations of the world are not engaged," he says, "in an insatiable search for oil merely to be able to supply their warships, flying machines and motor trucks for purposes of

[1] In the March issue of *Foreign Affairs*, 1923.

armed conflict." Mr. Bedford even ridiculed the notion that the British people are interested in oil supplies as a matter of naval strategy. But he made the possession of oil equally alluring by taking it for granted that the world was dependent upon oil for its more peaceful pursuits, for the progress of civilisation, not for its destruction, and he advanced the seemingly altruistic plea that international collaboration rather than selfish motives should govern the development of the world's oilfields. Mark his subtle pleading—

> "American oil companies ask for no opportunities which are not accorded to other nationals in the United States. They seek merely the opportunity of engaging alongside the oil interests of other nations in opening up the world's undeveloped petroleum resources.
>
> "To proceed upon any less comprehensive theory would be not alone narrow and egotistic, but would ultimately result in failure to effect the most thorough-going and economical production and distribution of the world's limited petroleum supplies.
>
> "Taking Mesopotamia as an example: It is a fact that the oil deposits there are practically an unknown quantity. Development has not proceeded to a point which demonstrates their commercial possibilities. Even if the United States should be given exclusive privileges in Mesopotamia, no single financial interest would be justified in assuming the risk of an investment which might involve such great loss."

And so he suggests a "pro-rating" among nations and interests of the risks involved in developing the oilfields of the future.

It should be apparent to the most innocent that the altruism of Mr. Bedford is insincere. Standard Oil has everything to gain and nothing to lose by international co-operation. Standard Oil is deplorably short of foreign oil concessions. How often has it met with that strange disinclination on the part of Governments to trust an American oil colussus? It had, for example, no concession in Mesopotamia. Its only hope of getting inside was to plead altruism—international co-operation. Would it do likewise in its home fields? Would it plead for British co-operation in the next public oil land to be leased in Oklahoma or Wyoming? Would it plead for Royal Dutch-Shell co-operation in the development of Alaska? The application for a lease by the Royal Dutch-Shell Group on the Osage Indian lands was originally refused by the American Government in accord with the policy of reprisal which Standard Oil undoubtedly fostered. The only criticism made by Mr. Bedford on this illuminating incident was the cryptic utterance that if Governments refrained from interference the oil interests could arrange a basis of co-operation. Yet in Mesopotamia Standard Oil is wanting Governments to interfere. Indeed, if the oil interests were left to themselves, the Anglo-Persian and Royal Dutch-Shell would surely stick to the validity of their concessions and Standard Oil would surely want.

There is really no half-way position that is tenable between a thorough international control of oil production, with its concomitant of internationalised zones where oilfields or oil pipe-lines lie situate in unsettled territory and of an international pro-rating of expenditure and profit, or a thorough freedom of competition between privately owned oil companies. The first is hardly practicable, seeing that Americans would undoubtedly refuse to apply the principle to their own fields; while the second is already in some degree in existence and can quite easily be perfected if a few sane principles are adopted internationally. No one will dispute with Mr. Bedford that international co-operation is needed for the proper development of the world's oil resources; but surely that co-operation should take the form of enforcing universally the principle of the "open door," not of tearing up existing legal rights. Let America and Britain come together on this basis, let them agree that it is unwise the one to hold Standard Oil views and the other to hold Anglo-Persian shares, and they will do much to eliminate for all time this element of disturbance to the world's peace.

APPENDIX I

MEMORANDUM OF AGREEMENT between M. Philippe Berthelot, Directeur des Affaires politiques et commerciales au Ministère des Affaires Étrangères, and Professor Sir John Cadman, K.C.M.G., Director in Charge of His Majesty's Petroleum Department.

By order of the two Governments of France and Great Britain, the undersigned representatives have resumed, by mutual consent, the consideration of an agreement regarding petroleum.

2. This agreement is based on the principles of cordial co-operation and reciprocity in those countries where the oil interests of the two nations can be usefully united. This memorandum relates to the following States or countries :—

Roumania, Asia Minor, territories of the old Russian Empire, Galicia, French Colonies and British Crown Colonies.

3. The agreement may be extended to other countries by mutual consent.

4. *Roumania.*—The British and French Governments shall support their respective nationals in

any common negotiations to be entered into with the Government of Roumania for—

(*a*) The acquisition of oil concessions, shares or other interests belonging to former enemy subjects or bodies in Roumania which have been sequestrated, *e.g.* the Steaua Romana, Concordia, Vega, etc., which constituted in that country the oil groups of the Deutsche Bank, and of the Disconto Gesellschaft, together with any other interests that may be obtainable.

(*b*) Concessions over oil lands belonging to the Roumanian State.

5. All shares belonging to former enemy concessions which can be secured and all other advantages derived from these negotiations shall be divided, 50 per cent. to British interests and 50 per cent. to French interests. It is understood that in the company or companies to be formed to undertake the management and the exploitation of the said shares, concessions, and other advantages, the two countries shall have the same proportion of 50 per cent. in all capital subscribed, as well as in representatives on the board, and voting power.

6. *Territories of the Late Russian Empire.*—In the territories which belonged to the late Russian Empire, the two Governments will give their joint support to their respective nationals in their joint efforts to obtain petroleum concessions and facilities

to export, and to arrange delivery of petroleum supplies.

7. *Mesopotamia.*—The British Government undertake to grant to the French Government or its nominee 25 per cent. of the net output of crude oil at current market rates which His Majesty's Government may secure from the Mesopotamian oilfields, in the event of their being developed by Government action; or in the event of a private petroleum company being used to develop the Mesopotamian oilfields, the British Government will place at the disposal of the French Government a share of 25 per cent. in such company. The price to be paid for such participation to be no more than that paid by any of the other participants to the said petroleum company. It is also understood that the said petroleum company shall be under permanent British control.

8. It is agreed that, should the private petroleum company be constituted as aforesaid, the native Government or other native interests shall be allowed, if they so desire, to participate up to a maximum of 20 per cent. of the share capital of the said company. The French shall contribute one-half of the first 10 per cent. of such native participation and the additional participation shall be provided by each participant in proportion to his holdings.

9. The British Government agree to support arrangements by which the French Government may procure from the Anglo-Persian Company supplies

of oil, which may be piped from Persia to the Mediterranean through any pipe-line which may have been constructed within the French mandated territory and in regard to which France has given special facilities, up to the extent of 25 per cent. of the oil so piped, on such terms and conditions as may be mutually agreed between the French Government and the Anglo-Persian Company.

10. In consideration of the above-mentioned arrangements, the French Government shall agree, if it is desired and as soon as application is made, to the construction of two separate pipe-lines and railways necessary for their construction and maintenance and for the transport of oil from Mesopotamia and Persia through French spheres of influence to a port or ports on the Eastern Mediterranean. The port or ports shall be chosen in agreement between the two Governments.

11. Should such pipe-line and railways cross territory within a French sphere of influence, France undertakes to give every facility for the rights of crossing without any royalty or wayleaves on the oil transported. Nevertheless, compensation shall be payable to the landowners for the surface occupied.

12. In the same way France will give facilities at the terminal port for the acquisition of the land necessary for the erection of depots, railways, refineries, loading wharfs, etc. Oil thus exported shall be exempt from export and transit dues. The material necessary for the construction of the pipe-

lines, railways, refineries and other equipment shall also be free from import duties and wayleaves.

13. Should the said petroleum company desire to lay a pipe-line and a railway to the Persian Gulf, the British Government will use its good offices to secure similar facilities for that purpose.

14. *North Africa and other Colonies.*—The French Government will give facilities to any Franco-British group or groups of good standing, which furnish the necessary guarantees and comply with French laws, for the acquisition of oil concessions in the French colonies, protectorates and zones of influence, including Algeria, Tunis and Morocco. It should be noted that the French Parliament has resolved that groups so formed must contain at least 67 per cent. French interests.

15. The French Government will facilitate the granting of any concessions in Algeria which are now under consideration as soon as the applicants have complied with all the requirements of the French laws.

16. *British Crown Colonies.*—In so far as existing regulations allow, the British Government will give to French subjects who may wish to prospect and exploit petroliferous lands in the Crown Colonies similar advantages to those which France is granting to British subjects in the French colonies.

17. Nothing in this agreement shall apply to concessions which may be the subject of negotiations initiated by French or British interests.

18. This agreement had to-day been initialled

by M. Philippe Berthelot and Professor Sir John Cadman, subject to confirmation by the French and British Prime Ministers respectively.

J. CADMAN.

P. BERTHELOT.

San Remo, April 24, 1920.

Confirmed :

D. LLOYD GEORGE.

A. MILLERAND.

April 25, 1920.

APPENDIX II

THE OIL RESOURCES OF THE WORLD

I. PRODUCTION AND CONSUMPTION COMPARED—THE WORLD AND THE UNITED STATES.

II. OIL RESOURCES OUTSIDE THE UNITED STATES.

A. *Some Primary Considerations.*

B. *The Western Hemisphere.*

(1) Mexico.
(2) Colombia.
(3) Venezuela.
(4) Other South American Countries.

C. *The Eastern Hemisphere.*

(1) Persia.
(2) Iraq.
(3) Russia.
(4) The Far East.
(5) Europe. (*a*) Roumania. (*b*) Poland.

D. *Conclusion as to Oil Supply in both Hemispheres.*

III. THE TREND OF DEMAND.

IV. SUPPLEMENTARY SOURCES OF SUPPLY.

THE OIL RESOURCES OF THE WORLD

THIS appendix is written for the layman rather than the oil expert. It aims at an economic summary of the oil resources of the world, and does not profess to be an exhaustive catalogue of existing or potential oilfields. Its main object is to assist the inexpert to employ his own common sense against the many fallacious generalisations foisted upon him by the "expert" propagandist.

I. PRODUCTION AND CONSUMPTION COMPARED—THE WORLD AND THE UNITED STATES

Despite recent over-production it is commonly held that the demand for oil is unlimited, the supply of oil restricted, and an oil famine only a matter of time. One doctrine of this popular school of thought is that oil will displace coal, as the steam-engine displaced the stage-coach. Every big liner that is converted from coal- to oil-burning quickens the public's sensibility of the end of coal. To all this the defenders of the faith in coal have answered that the world's present output of oil could not replace more than 11 per cent. of the quantity of coal consumed, taking four barrels of oil as the heat-equivalent of one ton of coal; further, that the ratio of resources to the present rate of production

in oil is not comparable with that ratio in the case of coal; in other words, that the supplies of oil are being rapidly depleted, and that the oil industry is doomed to extinction rather sooner than later. One finds, therefore, both the ignorant and the expert agreed upon the idea of an oil shortage. Yet, in a study of available statistics, there is nothing to suggest that the consumption of oil has been increasing at a greater rate than the production. The reverse turns out to be the truth.

Consider, in the first place, statistics of production. The following figures of the total yield of crude oil in ten-year periods up to 1919 and in the last three years indicate the progressive productivity of the oilfields in the United States and in the world generally.

	In Barrels of 42 U.S. Gallons (6·6 Barrels to the Ton).	
	World.	United States.
Decennial Production :—		
1860–1869	29,807,720	27,705,534
1870–1879	119,978,104	104,161,464
1880–1889	409,425,470	272,947,976
1890–1899	1,033,684,920	535,169,704
1900–1909	2,188,778,783	1,228,324,216
1910–1919	4,267,644,834	2,817,984,027
Annual Production :—		
1920	693,195,928	443,402,000
1921	765,064,600	472,183,000
1922	851,540,000	551,197,000
Grand Total (1860–1922)	10,359,120,359	6,453,074,921

It will be seen that the world's output of crude oil, after its initial spurt, has roughly doubled itself every ten years, and that the United States has accounted for about 62 per cent. of the world's total up to the end of 1922. The rate of increase in the United States production has averaged about 13 per cent. per annum from 1860 to 1880, 6 per cent. per annum from 1880 to 1900, 10 per cent. per annum from 1900 to 1920, and for the last two years 6·5 per cent. and 17·5 per cent. respectively. It may be taken that the output of oil in the world has forged ahead of the average rate of increase in the output of any other commodity. Such an achievement was made possible, partly because of the natural conditions peculiar to the business of oil production, partly because of the competitive conditions of this business in the United States. In other words, this prolific outflow of oil has been caused either by the chance striking of big oil pools, with gas or water pressure making wells into "gushers," or by the competition between companies in a common oilfield collectively forcing the pace of extraction. While production in Mexico has proceeded since 1910 under the natural pressure of gas or subterranean salt water—the Mexican "Southern Fields" are the classic example of "gusher" production—production in America has long proceeded under the artificial pressure of competition. Whenever an oilfield is divided into a large number of small holdings, each of these small holdings will drill wells along its boundary lines to

offset wells drilled along the boundary lines of its neighbours. Indeed, the zest of competition in one of these chessboard oilfields in the United States is such that the worst slump in the world's markets will in no wise damp down the frenzy of offset drilling. And when oil is discovered under natural gas pressure, as well as under pressure of competition, the sudden rise in output can readily be imagined. California is the latest demonstration of such a phenomenon. In the Signal Hill field, for example, where the Royal Dutch-Shell group discovered oil in the deep sands under enormous gas pressure, property had been divided into small-house lots for building purposes, as the land was pleasantly situated, overlooking Long Beach city. Small owners became small operators, a wild frenzy of drilling set in, and the field quickly presented an extraordinary spectacle of congested derricks and gushing wells, withal animated, it is said, by the roaring of wasted natural gas. The world is evidently still in the era of flush oil production.

Consider, in the second place, the slower development of consumption of oil. In the early stages of the industry production necessarily went ahead of demand. It has been rightly argued that, in the case of oil, supply has shaped, if it has not created, demand by calling new uses of oil into being. It was not until the twentieth century that the oil industry became assured of markets for its ever-increasing output by the development of automotive

transportation and the use of fuel oil in the merchant marine. These developments in the world's consumption of oil products have led Mr. Bedford, of the Standard Oil Company, New Jersey, to declare that since 1906 a new industry has been created. The growth of the oil business, he said, is a revolution rather than an evolution. In 1906 the oil industry existed primarily to supply the world with kerosene, which it was consuming at the rate of 33,000,000 barrels a year, principally for burning in lamps. That entailed a crude oil output of approximately 213,000,000 barrels. In the year 1921 it still only produced 46,312,000 barrels of kerosene. In other words, if the industry had been called upon to increase its output to supply only kerosene, it would have become a " turgid backwater in the rushing flood of American commerce." But the automobile made all the difference, and by 1922 the oil industry existed primarily to supply gasoline, by that time consumed at the rate of 150,000,000 barrels a year, and entailing a crude oil output of 851,540,000 barrels. Such was the revolution in the oil industry.

Yet it is obviously an error to deduce from these revolutionary developments that the consumption of oil has been increasing in the United States more rapidly than production. No less an authority than Pogue, in his " Economics of Petroleum," arrived at this erroneous deduction from the following series of index numbers :

Misleading Comparison of U.S. Domestic Production and Consumption of Crude Petroleum in Percentages of the Figures of 1913.

(Figures for 1913 = 100.)

	Production.	Consumption.
1917	135	145
1918	144	158
1919	152	161
1920	178	204

The data used were figures compiled by the United States Geological Survey. One does not doubt their accuracy. But it is surely misleading to compare consumption of crude oil which includes Mexican crude oil consumed, with production which does not include Mexican and other crude oil imported. Moreover, it is wiser to take the actual consumption of oil products in the markets than consumption of crude oil by refineries. Index numbers based on production, plus imports, compared with market consumption of all oil products plus exports, will show a very different result.

True Comparison of U.S. Production plus Mexican Imports with U.S. Domestic Consumption of all Oils, plus Exports.

(Figures for 1913 = 100.)

	Production.	Consumption.
1919	162	163
1920	207	200
1921	225	198
1922	257	223

It will be seen that since 1919 the supply of American and Mexican oil in the United States has been increasing more rapidly than domestic consumption and exports—the reverse of the accepted

American doctrine. During 1923 this tendency has been increased by the phenomenal production of the fields of the Los Angeles basin—Santa Fé Springs, Signal Hill and Huntingdon Beach—which caused California to yield in the first six months of the year 117,000,000 barrels, as compared with 139,000,000 barrels in the whole of 1922. These three fields are now producing 78 per cent. of the Californian total, which, in turn, is nearly 40 per cent. of the total daily production of the United States. The output of the area within a radius of forty miles from Los Angeles will probably exceed this year the combined production from all the oilfields of the world outside the North American Continent.

In the United States last year 82 per cent. of the world's oil trade was handled. Taking, then, the American as an index of the world situation, the production of oil since 1919 has been increasing at an average rate of 14·6 per cent. per annum, and the consumption of oil at the rate of 9·2 per cent. per annum. There is nothing in past statistics to suggest an oil shortage. Are there any tendencies in the present which point to such a danger in the future? Let us consider the availability of supplies outside the United States and the potential demand for oil in the future.

II. OIL RESOURCES OUTSIDE THE UNITED STATES

A. Some Primary Considerations

We will not attempt to put forward any estimates of the quantity of oil remaining in the known, nor of the quantity of oil lying untapped in the unproved, oilfields of the world. Such estimates are merely guesses and obnoxious to the wiser student of economics. In the first place, prognostications of the approaching exhaustion of an oilfield or oil "province" will generally be found to be based upon the decline curves shown by certain existing fields. But this line of reasoning may well be misleading when applied to the world situation. We may admit that an oilfield is a wasting asset, that a group of wells will decline in output if unsupported by the bringing in of new wells, and that, sooner or later, even the production of new wells which tap the same pool will fail to prevent a decline in the output of the whole group. For example, statistics, which are commonly cited, show that in a period of ten years from 1913 an average group of wells in Oklahoma showed a rate of decline of about 40 per cent. per annum. The elaborate petroleum data collected and analysed in the United States have indicated the symmetry of oil decline curves, and from this it has been argued that these curves "can be extended (graphically) beyond the actual period of production by continuing the curves in accordance with their

symmetry, and that such projections, if skilfully made, provide fairly trustworthy estimates of the future production of the well."[1] While this may be true of many individual wells, and while it is true that world production is the aggregate output of individual pools, all tending to show decline curves after the drilling programme has been completed, yet the world's future production cannot be predicted on the basis of, say, a 40 per cent. per annum decline curve. Apart from the consideration that such calculations cannot take into account the unpredictable production of unproved fields, it must not be forgotten that these "declines" are based on present methods of drilling. Yet American geologists admit that the oil-bearing strata in the United States and Mexico which are tapped by the drill, retain at least as much oil as is taken out. This is on account of the wasteful methods of competitive drilling, when a number of small companies are all tapping a common pool without any common policy or scientific plan for the draining of that pool. A change in drilling methods, or a change from divided to single ownership, may prove that the decline which had apparently overtaken certain fields was not real but premature, that these oilfields had not in reality entered upon the period when the production of new wells fails to make up for the decrease of the old. Indeed, the likelihood of areas in these older fields "coming back" has already

[1] "Manual for the Oil and Gas Industry under the Revenue Act, 1918." By Arnold, Darnell, and others. 1920. (New York.)

been shown in parts of Pennsylvania and Texas. In addition, deeper drilling may reveal sands at depths which have not been regarded as oil-bearing.

As regards the estimates of the unmined supply of oil—that is, of oil lying untapped in undeveloped oilfields—these are much worse than guesswork. In the case of solid minerals, the sinking of shafts and the assay of samples can render reasonably accurate the measurement of unworked reserves. With oil it must be confessed that, despite the recent improvement in the methods of guessing, no two geologists will agree, even approximately, in their estimates of resources. In 1922 a Joint Committee of the United States Geological Survey and the American Association of Petroleum Geologists declared that American supplies of oil would only last twenty years; but that estimate did not agree with any of the five estimates of the United States unmined supply made between 1908 and 1918. One must bear in mind that there are large areas in the United States which have been explored by the geologist but not yet developed by the operator, and that deeper drilling is only in its infancy. In California this year wells were "brought in" which were over a mile in depth. The fact is surely patent that oil reserves cannot safely, or even approximately, be estimated. Indeed, unlike other minerals, new discoveries of oil help to increase rather than decrease the likelihood of its occurrence. Dr. Veatch, the chief geologist of the Sinclair Consolidated Oil Corporation, stated before the American Petroleum Institute last year: "It is

now known that petroleum deposits may occur in sedimentary beds of any age from the oldest to the youngest, and in any structural position. As the greater part of the earth's surface is composed of sedimentary rocks, so the problem of accurately estimating the oil reserves of the United States and the world becomes a very broad one. . . . The conclusion may be stated proportionately: as the ultimate production of the United States is to the total area of sedimentary rocks of the country, so the total oil production of the world will be to the whole area of sedimentary rocks of the world." Because the ultimate supply of oil has a limit, it does not imply that the rate of production is limited. Indeed, the rate of production can go on increasing each year until the final decline comes. The indications are that for an indefinite time the supply of oil will be governed by the rate of drilling new wells, and, as one writer puts it, by "the intelligence shown in their location."

With these primary considerations let us consider from an economic point of view the availability of the world's oilfields outside the United States.

B. The Western Hemisphere

Amongst the many divergencies of opinion in estimates of the world's oil resources, it is surprising to find it more or less agreed that there is an even balance of oil distribution between the New World and the Old. Outside the United States the major oil deposits underlie two broad areas—the Gulf-

Caribbean region in the New World, comprising Mexico, Central America, Colombia and Venezuela, and the Caspian—Persian Gulf region in the Old World, comprising the Caucasus, Turkey, Iraq and Persia. The first is largely the American sphere of influence, the second presently the British sphere of influence. Apart from these two main oil "provinces" there are the oil deposits of Ecuador, Peru, Bolivia, Argentina in the Western Hemisphere, and the Russian, Japanese, Indian, and East Indian fields in the Far East, together with the European and African, in the Eastern Hemisphere. We will deal with the commercial or economic aspects of the more important of these oil deposits.

(1) *Mexico.*

It is possible to be a pessimist about "salt water" in the "Southern Fields" of Mexico and an optimist about the future of Mexico generally. The decline of the Mexican Eagle Oil Company is too often taken to be coincident with the decline of Mexico as an oil-producing country. In reality it means only that, where oil overlies salt water, the salt water will come up in the wells when most of the oil has been taken off, and that the company most heavily invested in the pools where this happens will be the first to collapse.[1] It must, however, be observed

[1] THE "SALT-WATER" HISTORY OF THE "SOUTHERN FIELDS" OF MEXICO.

(Tepetate, Juan Casiano, Chinampa, Amatlan, Zacamixtle, Los Naranjos, Potrero del Llano, Toteco, Cerro Azul, Cerro Viejo, Chapopote Nunez.)

that, while the "Southern Fields" have been declining in the last twelve months, the "Northern" or Panuco Fields have been expanding. The following figures point as well to the remarkable rise in the one as to the remarkable decline in the other :—

Total Mexican Production.		1922 Mexican Production by Zones.		
		Tampico Zone. (Panuco Fields).	Tuxpam Zone (Southern Fields).	Isthmus Zone.
	Barrels.	Barrels.	Barrels.	Barrels.
January .	21,034,728	4,159,514	16,873,654	1,560
February.	17,665,848	3,343,336	14,321,833	679
March .	18,918,288	4,246,756	14,671,035	497
April . .	16,193,932	3,740,059	12,452,923	1,000
May . .	16,775,090	3,681,770	13,092,817	503
June . .	17,105,856	3,171,626	13,933,551	679
July . .	14,974,923	3,492,648	11,481,772	503
August .	12,750,673	3,877,816	8,872,542	315
September	11,430,760	3,219,775	8,208,016	2,969
October .	12,584,353	4,238,372	8,345,509	472
November	12,589,447	4,678,942	7,909,455	1,050
December	13,033,301	4,913,345	8,117,817	2,139
Totals	185,057,249	46,763,959	138,280,924	12,366

For the first six months of this year the Panuco production made up for the loss of the "Southern

1918 *Dec.* Potrero del Llano, No. 4 well (Mexican Eagle Oil Co.), suddenly went to salt water.

1919 *Nov.* Casiano, No. 7 well (Mexican Petroleum Co.), went to salt water. Greater part of the Tepetate–Juan Casiano field drowned out.

1919 *Dec.* Deepest well in Southern Chinampa–Amatlan showed salt-water emulsion.

1920 Greater part of Northern Amatlan drowned out. Los Naranjos received its salt-water death warrant.

1921. Southern Amatlan–Zacamixtle doomed.

1922. Toteco doomed; Cerro Azul endangered; Cerro Viejo a failure; Chapapote Nunez infected.

Fields," with the result that Mexican production is not greatly declining as a whole :—

Total Mexican Production.		1923 Mexican Production by Zones. Tampico Zone. (Panuco Fields).	1923 Mexican Production by Zones. Tuxpam Zone (Southern Fields).
	Barrels.	Barrels.	Barrels.
January . .	12,412,315	4,979,505	7,432,810
February .	11,289,669	5,195,716	6,093,953
March . . .	12,125,925	5,999,679	6,126,246
April . . .	11,782,183	6,420,354	5,361,829
May . . .	12,564,847	7,517,978	5,046,869
June . . .	12,689,856	7,899,734	4,790,122
Total (for six months) .	72,864,795	38,012,966	34,851,829

What lessons are to be drawn from this as to the oil future of Mexico?

It is a comparatively new oil country, and the area under exploitation has been limited up to the present to about 62,175 acres. The main region of attack has been a narrow belt of land forty miles long and a few miles wide, stretching from the Tamiahua Lagoon to the Tuxpam River. The important fact to seize is that up to the present the actual oil seepages—that is, surface indications—have been the only guide to the development of oil in Mexico. "If," as one Mexican geologist has asserted, "the oil pools of the Mexican Coast Plain exist only where oil seepages exist, then the life of oil production in Mexico is comparatively short, and could be estimated at from one to possibly two more decades, with a continuously declining pro-

duction beginning within the next two years." But it is by no means necessary to have an oil seepage in order to have an oilfield. Even if it were, there are districts in Mexico with well-known oil seepages which have never yet been exploited. "We have demonstrated," said Mr. Doheny, the most successful operator in Mexico, "that a very small seepage may be the location of a substantial pool which is not directly under the seepage, but to one side of it, and this can only be determined by drilling a second well, which, if successful, must be followed by a third in order to discover whether there is or is not a pool. . . . *This very close fine-tooth combing of the possible oil regions of Mexico has only been done so far to a very slight extent.*"

Outside the known fields, no new areas have been brought into commercial production. The Mexican Eagle Company are expected to bring in producing wells in the Isthmus of Tehuantepec, Tabasco and Chiapas regions, but the structures here are of the salt-dome variety, which present considerable difficulties, and production is not expected to be large. Other areas are also being tapped, notably in the State of Tamaulipas, north of the Panuco, but results so far have not amounted to payable production. Adjoining the "Southern Fields" on the west and north there are reserve areas in the ownership principally of the Doheny interests which have surface indications that certainly promise production, but whether the spectacular gush of oil from the Casiano, Potrero del Llano, Cerro Azul fields

will ever be repeated is extremely doubtful. Nevertheless at any moment a new chapter in Mexican oil history may be opened by the wild-catter, when once wild-catting is conducted freely and universally. It should not be forgotten that it took nearly seven years from 1902 to develop any new production. It may or may not take so long from 1922.

(2) *Colombia.*

In Colombia there are some surface indications of oil more remarkable than in Mexico. But this country offers its own special difficulties. The highway into the interior is the Magdalena river. Unfortunately ocean-going steamers find the mouth of the river closed, and have to land their supplies at present at ports along the coast for shipment to points inland on the river. Even so the river offers only a certain draught of something under six feet of water. Flat-bottomed barges may have to carry oil-well supplies perhaps five or six hundred miles into the interior. The expense of laying a pipeline complete with pumping stations through this unfriendly terrain would entail, according to an American authority, a capital investment twice as great as for constructing oil-shale retorting plants with an equal throughput. If it is likely to cost a dollar a barrel to carry oil out of the interior of Colombia, the oil industry in Colombia is hardly likely to flourish while the era of cheap flush production continues in the United States.

Nevertheless, Standard Oil has gone ahead in the work of development. Through its subsidiary, the

International Petroleum Company, which purchased the Tropical Oil Company, it is operating on the De Mares concession of about 2,000,000 acres in the Carare region, Department of Santander, and has wells producing at Infantas, near the Rio Colorado, connected by pipeline to the river port of Barranca Bermeja, a distance of twenty-three miles. A small refinery has been erected there for local needs, with a capacity of 1,000,000 barrels a year. All this is over three hundred miles in the interior, and oil has also been struck by the Transcontinental a hundred miles further south, near Honda. Until the mouth of the Magdalena River is opened for ocean-going vessels and a pipeline is constructed from the interior to a sea-loading terminal, or until oil is struck in commercial quantities near the coast, an export trade to the United States cannot be economically developed. The Government is said to be preparing to open the Magdalena mouth, but Colombia is a primitive country, and as much work is necessary there in getting out the oil as in Alaska, with its Arctic winter. It is only the most optimistic oilman who would maintain that within two years Colombia will be an exporter of oil to the United States.

(3) *Venezuela*

When, at the close of 1922, two spectacular gushers were brought in on each side of the Maracaibo Lake, attention was rightly focussed on Venezuela as the most likely successor of Mexico in the oil world. The country has a favourable

situation. It is approximately 113 miles nearer to New York than Tampico, Mexico (1937 miles in all), and 863 miles nearer to Southampton (4062 miles in all). It is only 644 miles from the Panama Canal. It is thus favourably situated for export to Europe, to the United States and to the Pacific coast of America, and the Far East, via the Panama Canal. It has seventy navigable rivers, of which the Orinoco is the third largest river in South America. Its chief natural difficulty is a predominantly shallow coast with shifting sands. There is a consequent shortage of deep sea-water harbours, except on the Paraguana Peninsula and on the Orinoco delta.

The oil regions of Venezuela are for the most part situated around the Maracaibo Lake and the Gulf of Venezuela, and on the coast lines of the Caribbean Sea and the Atlantic Ocean. Surface indications—oil seepages and mud volcanoes—are widespread, and on the mainland opposite to Trinidad[1] are to be found large lakes of asphalt. While the quality of the crude oil varies from the asphaltic to the paraffin base, production so far has yielded a crude oil better in quality than that of the Mexican "Southern Fields." As regards the conditions for field operations, it must not be overlooked that the oil regions lie in the *tierra*

[1] Because Trinidad produces less than $\frac{1}{4}$ per cent. of the world's output of oil, and is not likely to produce much more, we have not dealt specifically with its oilfields. But it is noteworthy that from its famous Pitch Lake the greater part of the world's asphalt has been derived.

caliente, where the mean annual temperature varies from 74° to 91° Fah., and that there are difficulties of transport and geology which imply that development work will entail heavy expenditure. As regards transport, Venezuela is practically a virgin country with no roads, covered for the most part with a dense jungle. The British Controlled Oilfields, for example, have opened up more than 187 miles of main roads, in addition to 168 miles of bush roads, and more of trails. Moreover, the oilfields so far proven border round the Maracaibo Lake, which has only a shallow depth of water and a narrow channel to the sea, with a sand bar at its mouth. For this reason, the Shell group, in shipping their crude oil from San Lorenzo on the east shore of the lake to their refinery on the island of Curaçao, have had to employ specially-built, shallow-draught tank vessels, and have been forced to contemplate the construction of a pipeline nearly 300 miles in length to a point on the Paraguana Peninsula, in order to prepare for production and export on a large scale. The Venezuelan Government has, it is said, decided to open up the Maracaibo bar, and has granted a concession for this purpose to an American company, but whether this work will be seriously undertaken is doubtful. As regards geological structures, the Maracaibo operations have had to contend in certain areas with heaving sand and loose unconsolidated material, which make it difficult to drill or bring wells successfully into production. But this is by no means

a general condition. In eastern Venezuela the geological formations are different from those of the Maracaibo basin, and present strata of limestone, shale and sandstone that make easy drilling for the cable system. The actual drilling for oil in Venezuela is not, therefore, so formidable as the transport of it. The directors of the Royal Dutch in their last annual report sum up the position thus: "Venezuela offers good prospects, but the value of the production obtained there is to a great extent reduced by the lack of transport facilities, which we eventually hope to provide."

It is not generally realised that the American companies operating in Venezuela outnumber the British, so that competition in the field is bound to be severe, and to some extent there will be offset drilling or drainage of one property by another. All the big groups are operating, the Royal Dutch-Shell through the Venezuelan Oil Concessions, Ltd. (controlled through the Burlington Investment Trust Company), the Caribbean Petroleum Company and the Colon Development Company; Standard Oil through the Standard Oil Company of Venezuela; and the Anglo-Persian Oil Company through the North Venezuelan Petroleum Company, which it controls in partnership with the Trinidad Leaseholds, Ltd. Outside the big combines, there are the British Controlled Oilfields, Ltd., with the largest acreage in Venezuela, and a number of American "Independent" combines. The Standard Oil Company is drilling at Maturin,

near the Orinoco delta, and on its leases from the Maracaibo Exploration Corporation and the British Controlled Oilfields, on the former of which four or five wells have been brought in and capped. The Anglo-Persian subsidiary company has been drilling in the State of Falcon, so far without commercial result. But the pioneers in Venezuelan production have been the "Royal Dutch-Shell" combine.

After ten years' work and the outlay of about two millions sterling (so the British Consul in Venezuela reported in 1922) the Caribbean Petroleum Company of the Royal Dutch-Shell group has now reached the profit-earning stage. The Mene Grande area has been producing oil since 1916, when the first well came in at an initial flow of 50,000 barrels a day.

Production in Venezuela

	Barrels.
1917	127,743
1918	190,080
1919	425,000
1920	456,966
1921	1,433,000
1922	2,335,000

It is on the property of the Venezuelan Oil Concessions that the two gushers have been brought in. The first, La Paz No. 3, is situated on the west side of the Lake, in the district of Maracaibo, and "came in" in the first week of December, 1922, at 900 feet, at an estimated flow of 35,000 barrels a day. The oil sand is said to be 500 feet in thickness, and the quality of the oil to be 28° Beaumé, which is better than the oil of the Mexican

"Southern Fields." To carry the production of this well, the Company is said to be considering the laying of a pipeline northwards to the coast, about forty miles in length. The other gusher, Los Barrosos No. 2, at La Rosa, on the east side of the Lake, came in at 1525 feet on December 14th, 1922, at a maximum rate of over 100,000 barrels a day, and flowed for nine days before it became sanded up. The quality of the oil is said to be 22° Beaumé. The "Shell" group have not endeavoured to open this well again, but are drilling two wells adjacent to it, which, if productive, will lessen the pressure on Barrosos No. 2 and solve the trouble of the heaving sand. It was to dispose of this big production that the "Shell" group contemplated the construction of a pipeline to the Paraguana Peninsula, 300 miles from the field. Such a pipeline would cost £2,000,000 and take two years to construct.

The main concessions of the British Controlled Oilfields are situated in the west, on the Gulf of Venezuela, and in the extreme east, on the Orinoco delta. In the former district it owns the Buchivacoa concession, the east portion of which is leased to Standard Oil at a 12½ per cent. royalty, while the middle portion is under option to the "Shell" group for leasing on the same terms. The western portion of the Buchivacoa concession, comprising 3000 square miles (1,920,000 acres), is being developed by the company itself. Near El Mene in this western portion the company has struck oil of an exception-

ally high grade, rated at from 39° to 41° Beaumé, which is as good as Pennsylvanian. The company has twenty wells, of which sixteen have been completed, twelve have struck oil, and four are drilling. Oil was struck at comparatively shallow depths, but well No. 16 is now being drilled deep to test the deep-lying sands. All the productive wells have been capped in the absence of transport facilities, with the exception of No. 15, which is being allowed to flow 1000 barrels per week to supply field requirements of fuel oil and petrol. A pipeline of four-inch diameter is nearly completed from El Mene to Altagracia, on the Maracaibo Lake north-east shore, the output of which (3000 to 4000 barrels a day) has already been contracted for by the "Shell" group. Lack of storage and transport has prevented a complete test of the wells' productive capacity, but there is no doubt that, on account of the high grade of crude oil encountered in this district, commercial production has been reached. In the east in the Orinoco delta the company owns concessions covering 15,000 square miles (9,600,000 acres), which are adjacent to deep-water harbours. A test well has just been begun in a location which appears geologically promising. If oil is struck here in commercial quantity the importance of it can hardly be exaggerated in view of the natural facilities for export and the enormous extent of the concession.

There can be little doubt that the oil industry in Venezuela will in a few years develop into big

proportions. Venezuela seems destined to take the place of Mexico. The initial expense in field development will, however, be as great, if not greater, than in Mexico. At the moment development is being held back, partly because of the over-production of oil in the United States, partly because no one of the big companies is anxious to incur an expenditure of millions in building pipeline communication to deep water before the big production has been really tested. Already the Royal Dutch-Shell have lost (perhaps only temporarily) their best producing well by having closed it down when the recent gushers were brought in. Flowing oil wells cannot remain capped for ever without grave risk of ruining the oil sands. Sooner or later either "Shell" or Standard must take the plunge, lay the big pipeline, carry out an intensive drilling campaign and let the wells flow.

(4) *Other South American Countries—Ecuador, Peru, Bolivia, Argentina*

In exploiting the remaining countries of South America the oil man is confronted generally with the intriguing problem of how to carry the crude oil to seaboard. Most of the oilfields lie remotely in the hinterland. Peru with its oilfields—Zorritos, Lobitos, and Negritos—actually on the coast, and in some cases actually in the sea, and Ecuador are the only exceptions of importance to the difficulties which await the oil engineer in these South American countries. Even in Peru there are the Titicaca fields

of the Andes, which have no natural outlet to the coast, unless it be the 1500 miles down the Amazon river. There are vast oilfields, according to the most sober geological opinion, lying in the El Beni and Santa Cruz provinces of Bolivia, and in the latter Standard Oil has even purchased a large concession. But Bolivia is shut in by the Andes from the Pacific Coast. Of the exit southwards by waterway, the Pilcomayo river would not permit even of barge traffic, so that a pipeline would have to be built across hundreds of miles of desert to the Paraguay river before oil could be barged down to the River Plate. Of the exit northwards there is a waterway of about a thousand miles—the Beni and Madeira rivers—with waterfalls to be circumvented, before the Amazon is reached, where ocean-going tankers can navigate. Argentina has an oilfield on the Patagonian coast—the Comodoro Rivadavia—but its Government, which has reserved all the best areas for its own exploitation, does not permit the export of oil overseas. Moreover, the other producing field, a small area in Neuquen, is about three hundred miles by rail from Bahia Blanca. And oil has been struck south-east of the Government reserve in Neuquen, away from the railway, and still more remotely in the region of Cacheuta, Mendoza.

Having in view the enormous cost of transportation, let alone field work, in these South American countries, it is doubtful whether the North American continent would yet be within their economic radius

of export. The results so far attained undoubtedly point the warning that on account of its natural difficulties the oil development of the South American interior is going to be a slow and costly process in its initial stages.

C. The Eastern Hemisphere

At the present time the producing areas in the vast oil "province" of the Caspian—Persian Gulf are confined to its northern and southern extremities—to the Aspheron peninsula on the Caspian Sea (Baku), with which may be included for the purposes of this survey the Grosny fields, northeast of the Black Sea, and the Emba field, on the northern shores of the Caspian, and to the fields of southern Persia. In addition, there is a comparatively small production in Egypt at Gemsah and Hurghada on the Gulf of Suez.

The oilfields of northern Persia, and of Asia Minor (including, if you will, Palestine), lie dormant. The oil deposits of Northern Persia are believed to extend to the Vilayets of Van, Bitlis and Erzerum, which the Chester concession would traverse. No systematic exploration for oil in these districts has yet been attempted, but seepages of oil are fairly plentiful, and the oil prospects in the Vilayets of Van and Bitlis are considered commercially good. In the Vilayet of Erzerum the region near Terdjian is regarded as promising. There is, of course, no question of certainty where oil is concerned, but these districts have the advantage over the Iraq

fields in being nearer to the Mediterranean. All these Turkish fields are tapped by the Chester Concession, and the world waits, a little sceptically, on the developments which are to transform Turkey into an oil-exporting country.

(1) *Persia*

The presence of oil in Persia or Iraq has been known from the earliest times. Herodotus gives a detailed account of how crude oil was drawn up out of a well " near Ardericca " (close to the main producing field of the Anglo-Persian Company) in a wine-skin, and then poured into reservoirs until the asphalt solidified and left the lighter oil, which he said was " black and very odoriferous." Did not the pitch or asphalt from seepages caulk the Ark of Noah, make water-tight the ark of bulrushes in which the infant Moses was lain, and bind the walls and palaces of Babylon? Let us briefly consider modern developments.

The kingdom of Persia has an area of 628,000 square miles, of which a round 500,000 square miles are covered by the D'Arcy Concession. It will be seen that the one navigable river of Persia is the Karun, which has its source in the Bakhtiari Mountains and empties itself at Mohammerah into the Shatt-al-Arab. Not very far from the upper part of the river Karun, in the district which the Persians call Maidun-i-Naftun, meaning " the field of oil," are situated the main wells of the Anglo-Persian Oil Company. Adjacent to the Maidun-i-Naftun field is the

Maidun-i-Naftek, and the area of these two fields, covered by prolific flowing wells, is only three and a half square miles. The number of wells open is about sixty, and one of the earliest—No. F 7—is still producing, after ten years, 12,000 barrels a day under its own pressure. Its total yield has been over 35,000,000 barrels. The pipeline runs 150 miles from Maidun-i-Naftun to the refinery on the island of Abadan, in the Shatt-al-Arab River, a refinery twice the size of that at Swansea, and still being enlarged. There are now two ten-inch lines, and a third—a twelve-inch—is being added. In December 1922 Sir Charles Greenway stated that the pipelines and pumping stations admitted a production of 5,000,000 tons per annum, but that the refinery capacity was 3,100,000 tons, that it was to be 4,100,000 tons by June, and 4,500,000 by the end of 1923. The production for the year ending March 1923 was about 2,900,000 tons.

It seems as certain as anything can be in oil development that even 5,000,000 tons per annum is much below the potential capacity of the Maidun-i-Naftun field alone. And another large producing field has been located near Qasr-i-Shirin, in the west, on the borders of Mesopotamia. Wells have been drilled actually within the territory of Iraq, and one was brought in, as we have said, while the second Lausanne Conference was sitting. Drilling has also been undertaken on Qishm Island, on the lower Persian Gulf, and in other places where seepages are prevalent. Sir Charles Greenway declared

that additional wells have definitely extended the area of the "proved" territory, and that a large number have actually been drilled into the oil-sand and "capped," or have been drilled down to within a few feet of the "cap" rock so that they are all ready for production whenever it is required. The oil is the highly-valued light gravity kind (37° Beaume) containing a large percentage of gasoline, kerosene, and lubricating oils, as well as fuel oil and paraffin wax. Undoubtedly the Anglo-Persian Oil Company have proceeded warily and wisely. Exploitation has had its difficulties—rugged hills, lack of roads or railways, an exacting climate, poor water (a source of great trouble for boiler tubes) and uncertain labour, but the Company can rightfully claim that it has been carried out with a minimum of waste and folly and a maximum of science. After all, there is no competition in Persia, no off-setting, and no wild-catting, as there is in Mexico and the United States. The potential productivity of the country—omitting that of the five northern provinces—must be enormous, as large as, if not greater than, that of Mexico.

(2) *Iraq*

According to good authority, there are three oil-bearing regions in Iraq. There is, first, the belt between Kirkuk and the Persian Gulf. Along this at Kirkuk, Taza Khurmatli, and Mandali, the Turks used to collect oil from hand-dug pits and carry it in skins on donkeys to a few stills.

There is, next, the middle Tigris belt, extending up the river from the Fethah gorge in the Jebel Hammin almost up to Mosul, which contains oil-pits about thirteen miles south of Mosul, and at El-Hadhr and the Fethah gorge. Third, there is the Euphrates belt, extending along the river from a few miles south of Hit to some distance above Deirez-Zor, which includes the asphaltic deposits at Hit. Apart from the Anglo-Persian Oil Company's well at Mandali, there has been no modern attempt to thoroughly exploit these oil regions. Up to the present their capacity has only been reckoned in donkey-loads. Whether they will be commercially productive remains uncertain. Even if they are, we have the authority of Sir Robert Waley Cohen for the opinion that it will be a decade before these lands will be producing a substantial quota of the world's supply. And the fact remains that a pipe-line will have to be laid about 400–500 miles to the Levant, across a desert area peopled by nomad tribes whose penchant for cutting pipelines may well be anticipated. The cost of that length of pipe may be sufficient to take away the whole commercial value of the discovery of oil in Mosul.

After all, there is the lesson of the Anglo-Persian Company in Persia. The late W. K. D'Arcy poured out £300,000 in the quest for oil in Persia. Small bodies of oil men were crossing and recrossing the mountainous and baking deserts of Persia for seven years before they discovered a commercial oil-field. It was not that they could find no traces

of oil. There were many visible signs of it in inaccessible regions. It was only after seven years' search that they struck a paying oil deposit within 150 miles of the sea. Even then that was only the beginning of the colossal expenditure on Persian oil. Roads had to be made across those mountainous and trackless 150 miles so that machinery, boilers, building materials, tanks and pipes could be hauled to the fields. Then the pipeline had to be laid over difficult country for oil pumping and in the face of suspicious and often hostile tribes. The initial expenditure was obviously colossal. Now picture similar conditions to these for the path which oil from Iraq must take to the sea, but reckon 400–500 miles instead of 150, and you will appreciate part of the magnitude of the task that awaits the exploiter of these virgin oilfields.

(3) *Russia*

From the United States, Russia and Mexico have come nine-tenths of the total world production of petroleum. From 1898 to 1901 Russian production exceeded that of the United States, and after that came a fluctuating but somewhat downward course. In 1917 the Revolution caused an abrupt decline, which has been to some extent checked during the past two years. The following figures compare the approximate quinquennial production of crude oil in Russia and in the whole world between 1901 and 1920.

	(In Millions of Barrels).		
	Russia.	World.	Russia's percentage.
1901–1905	374·8	977	38·4
1906–1910	319·3	1390	23.0
1911–1915	332·5	1912	17 4
1916–1920	238·8	2716	8·8

If we take the years from 1916 to 1920 separately we see the effect of the revolution on the volume of Russian oil production :—

	(In Millions of Barrels.)	
	Russia.	World.
1916	72·8	459
1917	70·0	509
1918	40·5	515
1919	25·5	545
1920	30·0	688
1921	28·5	759
1922	35·0	851

The chief petroleum areas of Russia are Baku, Grosny and Emba. Taking the least of these first, the Emba, or more generally the Ural-Caspian district, covers a large area of over 30,000 square miles on the north-eastern shore of the Caspian Sea, the two principal centres of production being Dos-Sor and Makat, where oil was first struck in 1911. The fact that these fields in the Ural districts are so near the mouth of the Volga River makes them of great importance to the Russian domestic trade.

The Grosny district is on the northern slope of the Caucasus Mountains, and has two main producing areas—the old field and the new field. The former is about six and a half miles from the town of Grosny, and active exploitation has been carried on for the last twenty years. In November 1917, when Grosny became the centre of the civil war, the new field, comprising the Novo-Aldi and Belik districts, was destroyed by fire. Five gushers were burning for nearly twelve months, and the amount of oil consumed is estimated at over 8,000,000 tons. The old field did not suffer such serious damage, and production is being gradually restored under the Soviet administration.

Baku, by far the most important oil area in Russia, is situated on the Aspheron Peninsula, on the shore of the Caspian Sea, at the extreme south-eastern end of the Caucasus Mountains. Almost the whole of the Peninsula is oil-bearing, and as but a small proportion has so far been exploited, there is scope for much further productive oil work. A recent report by M. Golubiatnikoff for the Soviet Government claimed that undeveloped lands in the Surakhany, Bibi-Eibat, Balakhany—Sabunchi—Romana districts could be made to yield an annual production of 176,000,000 poods provided about 4705 wells were either drilled or deepened every two years. Of these perhaps the most valuable area still to be fully developed on account of the prolific nature of the wells is in Bibi Eibat Bay. It was here that the sea could be ignited in con-

sequence of the escaping gas bubbling up through the water. Just before the outbreak of the Revolution an encircling wall had been completed in the Bay, and the part of the sea enclosed had been filled in with sand to enable drilling to be carried out on dry ground. The maximum production obtained in Baku was 10,000,000 tons in 1902. In 1916 it was about 7,500,000 tons. In 1922 it was approximately 2,500,000 tons. This compares with about 1,200,000 tons at present being obtained from Grosny, and 70,000 tons from Emba, so that the outstanding importance of Baku is evident.

There are a few other oil areas to be noted. Maikop, in the Kuban district, is on the north-western slope of the main range of the Caucasus Mountains, and the third oil pipeline in Russia (the only other two being Baku-Batum and Grosny-Petrovsk) runs thence down to the port of Tuapse on the Black Sea. In 1912, as much as 150,000 tons of oil were produced, but the output has steadily declined; in 1914 it was half that amount, and since the Revolution no production has been reported.

Kerch, in the Crimea, and Anapa and the Taman Peninsula, in the Kuban district further west than Maikop, have been the scene of prospecting operations, but there has been no actual production. There has also been some boring done at Guria, twenty-five miles from Batum. Apart from these Black Sea districts, there is Cheleken, a small island

in the Bay of Krasnovodsk, on the east coast of the Caspian Sea, and Fergana, in the central part of Turkestan, in neither of which is there any commercial production at the present time.

Here may be mentioned the Republic of Georgia, which has seen no serious commercial attempt to develop its oil resources, although the presence of oil in the eastern districts of Kachieten, Schirak and Eldar, and in the western districts of Gurien, has long been known. A little oil has been produced by primitive methods, but before the war Georgia suffered from competition from Baku, and since the war from politics and strife. The oil is there.

The Soviet Government's operations, hampered by lack of material and skilled engineer labour, have resulted in the practical loss of the present producing strata of the Baku fields and in the destruction of part of the rich new field of Grosny; but it is evident that there are important new fields waiting development and that lower oil-producing sands can be reached both in the Baku and the Grosny districts. In other words, there is a huge oil production yet to be obtained from the Russian fields.

What part, then, can Russia play in the economic organisation of the world as far as oil supplies are concerned? At the present time field production reaches 60 per cent. of the pre-war output and exports about 30 per cent. There are two opposing schools of thought on this question. One view is that Russia requires for herself the whole of her output. Certainly if Russian industries and rail-

ways were working normally the present output would be entirely absorbed, and even at a pre-war rate of output the amount available for export would be negligible. The other view is that Baku and Grosny could, under expert management, rapidly produce sufficient to allow for exports long before the industries and railway systems of Russia, under the most hopeful circumstances, could experience a similar recovery. That this opinion is shared by some members of the present Soviet administration is evidenced by their anxiety to grant operating oil concessions. At the moment of writing the American Barnsdall Corporation is the only foreign oil company that holds and is working a concession in Russia—on the reclaimed lands at Baku.

There is another point to be considered. If the Standard Oil and the Anglo-Persian Oil Companies are to develop the oilfields of Northern Persia it is all-important to have the refineries at Baku working and the pipeline to the Black Sea free and open. The most economic route for exports from the Northern Persian fields, lying on the southern shores of the Caspian, is shipment across the Caspian to Baku, where the most modern and complete refineries are situated, and thence by pipeline to Batum. Baku, in other words, is the base for the refining and distribution of the huge oil deposits not only of the Caucasus, but also of Northern Persia and Turkestan. That will always constitute the fundamental importance of the Russian oil industry.

(4) *The Far Eastern Oilfields—Sakhalin, Japan, India, East Indies*

Scattered around the Eastern Hemisphere, outside this enormous reserve of the Middle East, are oilfields of great importance, though not always of great significance commercially. There is the island of Sakhalin, in the northern half of which Mr. Sinclair has recently acquired a large concession, but the Japanese still hold it, and in view of the declining production of their own fields in the islands of Honshu and Hokkaido [1] it seems likely that they, and not Mr. Sinclair, will begin exploiting northern, as they are exploiting southern, Sakhalin for oil.

Then there is China, but who can tell what oil lies underground in that troubled country, or when it will be tested? India and Burmah do not produce enough to satisfy their home markets, and there is some doubt about the possibility of extending their known oil-producing areas.

The Dutch East Indies (Sumatra, Java and Borneo) and British Borneo remain the most important world producers in the Eastern Hemisphere. Timor and Ceram have produced a little, and oil deposits are said to be scattered all over this Eastern Archipelago, up to and including the Philippines and possibly Papua. On account of the high quality of their crude oil the oilfields of the East Indies are regarded as among the richest in the world. Although pro-

[1] Japan's production reached its zenith in 1915, with 3,100,000 barrels. With a consumption of refined oil products increasing at the yearly rate of nearly 33½ per cent. Japan's reserves are of no interest but to herself.

duction up to date has not loomed large in the world's figures, yet it is capable of great expansion. Climate and jungle country have been against rapid field development. All the more honour is due on that account to those pioneers, the brothers Stoop in Java (1887), the Royal Dutch in Sumatra (1890), Lord Bearsted (1891) and his "Shell" group (1897) in Dutch Borneo and Sarawak. Even now, Borneo, which is producing the greater quantity, from its Sanga-Sanga field, is covered with dense jungles, and is said to be so impenetrable that only the coast lands have been properly surveyed. In Sumatra practically all the drilling has been done in jungle country. The position is similar in Sarawak (British Borneo), which may become the biggest oil producer in the British Empire. How far these oilfields can be extended remains to be demonstrated by the Royal Dutch-Shell group, which has monopolistic control.

(5) *European Oilfields*

In spite of all the production from the Caucasus, the Persian Gulf and the East Indies, Europe remains chiefly dependent upon the United States for her oil supplies. The only fields of commercial importance to European consumers are those of Roumania and to a less extent Poland. France has obtained the comparatively small Alsace production of about 392,000 barrels a year by the Treaty of Versailles, obtains a trifle of 3000 barrels from Algeria, and is searching even the Sahara Desert for

oil, as well as her own country. Italy has a paltry production of about 34,000 barrels a year, which she is endeavouring to increase. Germany likewise has an inconsiderable "free" oil production from some wells in Prussia and Bavaria. Some day, perhaps, production will develop in Czecho-Slovakia, Spain and Serbia, but it is a question of many years and cannot be taken into immediate consideration. Spain, where some American companies are drilling deep test wells, may be the first to reach commercial production. We need only consider the Roumanian and Polish fields in some detail.

(a) *Roumania*

Roumania attained its peak of oil production in 1913 with an output of over 2,000,000 tons. Its post-war production, partly on account of the damage done to the wells during the War, partly on account of the inadequacy of pipeline and tank-car transportation and the restrictive uncertainties of Government control, has fallen off, but in the last three years has been showing a steady, if slow, recovery.

Roumanian Production and Exports in Metric Tons.

	Production.	Exports.
1914	1,943,421	654,000
1920	1,034,022	247,497
1921	1,163,240	362,095
1922	1,368,929	430,000

On the other hand, the production figures by districts show that, while some of the old fields are declining, very little new territory has been opened up since the War.

ROUMANIAN PRODUCTION BY DISTRICTS—IN METRIC TONS.

	Total Tons.		
	1922.	1921.	1915.
1. PRAHOVA.			
Moreni	609,718	515,828	741,163
Campina	66,358	71,725	120,657
Bustenari—Calinet	79,700	69,186	129,954
Bustenari—Chiciura, Gropi Tontesti	34,391	30,905	66,063
Bustenari—Bordeni, Recea	9,232	8,774	53,642
Bustenari—Runcu, Scorteni	72,956	40,065	36,376
Tintea	45,818	36,478	92,480
Baicoi	129,650	89,029	178,060
Filipesti de Padure	8,052	7,266	8,279
Copaceni	1,269	242	*
Draganeasa	844	—	—
Ceptura	46	—	*
Podeni	—	—	—
Pacureti	13	24	*
Matita	137	178	—
2. DAMBOVITA.			
Gura, Ocnitei	38,838	51,638	69,781
Colibas	311	48	*
Resca	27	5	—
Glodeni	720	720	*
Ochiuri—Rasvad	139,890	112,549	28,437
3. BUZEU.			
Policiori—Arbanasi	91,431	90,128	107,555
Ghizuniile	56	15	—
Berca	—	—	*
Sarata	807	20	*
4. BACAU.			
Divers chantiers	38,665	38,417	*
5. Others	—	—	40,698
Total	1,368,929	1,163,240	1,673,145

* Included in Others.

As was expected in 1915, the Ochiuri–Rasvad field, in the Province of Dambovita, has become the next largest producer after Moreni. Baicoi is now third.

(b) *Poland*

The territorial changes effected by the terms of the Treaty of Versailles resulted in the transfer to Poland of the most important part of the former Austrian section of Galicia. Naturally the War put back the productivity of the Galician oilfields, and drilling since the War has been still concentrated on old oilfields. The producing districts may be classified as follows : (*a*) West Galicia ; (*b*) Boryslaw-Tustanovice-Schoduica ; (*c*) East Galicia, Bitkow and district.

Until 1910 the Boryslaw-Tustanovice district was considered the principal producer. The wells there, although they are very deep—3900 feet to 5500 feet —have a large productivity and are long-lived. In West Galicia the crude oil is of a much higher quality than that of Boryslaw-Tustanovice, but the wells, of comparatively shallow depth, are small producers, although long-living. At Bilkow, in East Galicia, is being produced a crude oil equal, if not superior in quality to that of West Galicia. But Poland appears definitely to have passed its peak of production in 1909 with 2,076,740 tons, and its output was steadily declining before the War. In 1920 the total production was 849,000

tons, in 1921 it was 783,000 tons, and in 1922, 774,000 tons. Exports for 1921 amounted to 333,630 tons, and for 1922 to 362,000 tons. The important feature of the Polish oil situation is that consumption is increasing at a greater pace than production. In 1921 the total domestic consumption was 109,250 tons, and in 1922 it was over 200,000 tons. With the continued development of Polish industries the tendency is for domestic oil prices to exceed those obtainable abroad by Polish oil companies.

Considering the total volume of European consumption it is clear that neither Roumania nor Poland can seriously influence the chief oil markets with their exports.

D.—Conclusion as to Supply in both Hemispheres

The world's oil reserves, we have said, are incalculable. The dormant oilfields of South America and of the Middle East are beyond geological estimate for the present. Indeed most geologists, not engaged in propaganda work, seem to agree that the oil resources of the world are so vast that no serious inroads upon them have yet been made. As one of them put it, the earth's surface has so far only been scratched for oil.

The United States has shown itself capable of increasing its rate of production by much more than was necessary to counterbalance the decline in that

of Mexico and Russia. The productivity of Persia is only limited by the capacity of the pipelines, refineries, and tanker fleets of the Anglo-Persian Oil Company. Moreover, of the South American fields being opened up, Venezuela might conceivably repeat the history of Mexico. There is no reason, then, short of political restrictions or disturbances, why the world's oil production should not maintain its progressive rate of increase. However much consumption may increase in the future (a question which we shall next examine), it is only sensible to take the view that production will be made available by the economic strength of demand. American oil history has conclusively shown that the right price brings out the oil.

III.—THE TREND OF DEMAND

If the world's fuel consumption be viewed in proper perspective it will be appreciated that we have not yet reached the "oil age." In the United States alone crude oil production would have to rise from something over half a billion barrels a year to more than three billion barrels a year in order to substitute fuel oil for the coal consumed. The following analysis of the past and present demand for oil will show precisely what the so-called "oil age" amounts to.

Principal Oil Products Produced from Crude Oil Run to Stills in the United States in Approximate Quanties and Percentages.

	(Millions of Gallons.)				
	Crude Oil.	Gaso-line.	Kero-sene.	Lub. Oil.	Gas and Fuel Oil.
1899—Run to stills	2,180	281	1,259	170	305
,, Percentages	—	13	58	8	14
1904—Run to stills	2,810	291	1,357	315	360
,, Percentages	—	10	48	10	13
1909—Run to stills	5,070	540	1,675	537	1,702
,, Percentages	—	10	33	10	34
1914 Run to stills	8,040	1,500	1,935	517	3,734
,, Percentages	—	18	24	6	46
1919—Run to stills	15,200	3,958	2,342	847	7,627
,, Percentages	—	26	15	6	50
1922—Run to stills	21,029	6,202	2,306	978	10,706
,, Percentages	—	19	11	5	50

The remarkable shifting of demand from one oil product to another illustrates the revolution which, as we have mentioned, the oil industry happily suffered at the hands of the automotive industry. The demand for kerosene, which required 58 per cent. of the total quantity of crude oil refined in 1899, has so decreased, with the competition of gas, electricity, and other forms of lighting, that it is now satisfied by only 11 per cent. of the present total. It will be observed that 69 per cent. of the total quantity of crude oil refined last year was required by the demand for oil as a power-producer—19 per cent. as gasoline for the motor engine and 50 per cent. as fuel oil, either for steam raising or for the Diesel type of engine. With the new use for

kerosene in the internal combustion engines of the farm tractor, the fishing vessel, and the like, together with the increasing use of gasoline for road and air transport, a still greater percentage of the crude oil supply will be utilised in the production of power. This is the consideration that has caused the oil business man to declare, whenever there is a boom in trade, that the demand for oil will go ahead too fast for production. To appreciate the unwisdom of this view, let us examine the demand for fuel oil and gasoline more closely.

The demand for fuel oil is heaviest for the purpose of raising steam in boilers. Yet this use is wasteful in its method of power-producing, and, except in certain special industries, and in certain classes of the merchant marine, cannot be regarded as a permanent demand. The disappearance of fuel-oil burning waits only upon the wearing out of the vessels whose hulls were constructed to carry boilers, and upon the further development of the Diesel type of internal combustion engine, which is already being widely adopted in the new vessels that are being constructed both for passenger and freight traffic. The general adoption of this more economical and efficient means of using the power stored in petroleum hydro-carbons will bring with it increased demand for Diesel oils, and will thereby in all probability raise the price of fuel oil (of which there will be a less supply) above its economic ratio to the price of coal—which is approximately 4 : 7. Two factors have so far enabled fuel oil to compete

successfully with coal. First, the primary product of an oil refinery is gasoline (petrol), which means that the refiner can afford to sell the fuel oil residue cheaply, since nearly 45 per cent. of the total return on the refining process is accounted for by the gasoline. And, secondly, the era of flush production has forced big producers to dispose of their crude oil as quickly as possible by " topping " it, that is, by drawing off the light distillates and selling the remainder as fuel oil in order to be rid of it.

Naturally, fuel-oil burning has certain peculiar advantages as against coal. In the case of the large passenger liners the ability to bunker more quickly and to save valuable cargo space, giving time for extra voyages in the year and a lower ratio of operating costs to cargo carried, is making universal the conversion of this class of ship from coal to oil. So, too, in large hotels and food factories, where cleanliness is of first importance, fuel oil is displacing coal. But in the ultimate analysis it is clear that price is the governing factor. It is the rising costs of coal production and the falling prices of fuel oil that have caused the great increase in fuel-oil consumption in the last twelve months.

The burning of coal and of fuel oil for steam-raising are in any case uneconomic methods of producing power. The steam-engine utilises less than 10 per cent. of the heat in oil or coal, while the internal combustion engine makes use of over 30 per cent. of that in oil. The internal combustion engine using heavy oil is the power unit of the future.

If, then, the demand for power, either by the merchant marine or by the industrial plant, is to be met more economically by the consumption of heavy oil in the internal combustion engine than by burning it under boilers, one will readily appreciate how vastly that affects the ratio of oil supply to demand. One-third the quantity of oil would serve the same power-purpose.

Turning to the consideration of the demand for that other power-producing product of crude oil—petrol or gasoline—it is equally clear that the tendency is towards making the supply go further. This arises chiefly from developments in the science of oil refining. In other words, the production of natural gasoline (called "straight-run") in the refining process has been supplemented by a growing volume of "casing-head" gasoline and "cracked" gasoline, which are generally blended together. "Casing-head" is the highly volatile gasoline recovered from natural gas, while "cracked" gasoline is manufactured from the heavy oil fractions (fuel oil) by processes of "cracking" distillation, whereby the heavy hydro-carbons are decomposed or "cracked" into lighter, more volatile, components. This supplementary production now accounts for about 20 per cent. of the total gasoline supply in America. At the same time, another supplement to supply has been increasingly utilised—that is, the inclusion of the lighter ends of kerosene, which has the effect of raising the "end point" of the gasoline product, (in other words, of lowering its volatility) to the

annoyance, hitherto, of the motor-engineer and driver. Some 15 per cent. of the total commercial supply in the United States has been produced in this way, and further important changes on these lines are to be expected.

Progress in oil technology is being made in other ways—to the same end of conservation of supply. Sir John Cadman has said: "I believe that before any danger arises of a world shortage of petrol, science will have perfected a method of hydrogenation to supersede the relatively wasteful and unsatisfactory 'cracking' processes. By this means the abundant supplies of kerosene, gas and fuel oils could be built up into petrol, and an immense addition made thereby to the quantity available." As a matter of fact, two inventors already claim to have solved the problem of hydrogenation—Dvorkovitz and Bergius—and Sir John Cadman must have been aware of the latter's invention when he made that prophecy. Indeed, while the hydrogenation of coal cannot yet be said to have been commercially demonstrated, the Bergius process has been applied on a semi-commercial scale to the hydrogenation of heavy oils by a German company near Mannheim, whose plant is said to be capable of treating 50 tons of heavy oil per day. Mexican crude oil and German shale and lignite oils have there been successfully converted into oil products of low boiling points. The importance of this invention can hardly be over-estimated.

Clearly, the theory of an impending oil famine

cannot be predicated on the basis of the past consumption for oil products. The trend of demand is towards a much fuller utilisation of supply.

IV.—SUPPLEMENTARY SOURCES OF SUPPLY

Mr. Walter Teagle, President of Standard Oil (New Jersey) has appropriately declared that before the price of gasoline rose as high as a dollar a gallon some cheaper kind of fuel would take its place. We may safely agree with his underlying thought that it is the question of price that governs the development of supplementary sources of fuel supply.

It must be appreciated that there are two aspects of this problem—the question of oil substitutes, and the question of sources of oil supply other than oil wells. The economic issues involved in the case of oil substitutes have been complicated by the introduction of political considerations. The most promising line of development was that offered by the power-producing properties of alcohol. In France the question has been taken up as one of national defence, and the addition of 10 per cent. of home-produced alcohol to all imported motor spirit has been decreed by the legislature. There are some grounds for suspecting that this artificial support for its claims is not unconnected with the need for liquidating large Government stocks of alcohol. Similar motives appear to have prompted

the Czecho-Slovakian Government in pushing the sale of a new motor spirit, known as dynalkol, a mixture of alcohol and benzol, to which 1 per cent. naphthalin or 5 per cent. ether is added. Some similar mixture is being made in Germany. Political considerations may therefore force alcohol or other substitutes to the front before they can compete on a strictly economic basis with petrol. Nevertheless, the range of sources for the production of alcohol is so wide, including as it does cane or beet sugar, potatoes, prickly pear, wood pulp and the like, that any shortage in the supply of free mineral oil would quickly stimulate experiments with this alternative type of fuel.

Quite distinct from the oil substitutes are the supplementary sources for the production of "fixed" oil, as opposed to the "free" or liquid oil from the well. "Fixed" oil is derived from solid bituminous minerals, such as coal, lignite and oil shale, which involves mining and crushing, retorting, and refining. Heavy capital outlay is involved in each of these three operations, and it is axiomatic that "free" oil will undersell "fixed" oil while "free oil" is obtained in anything like flush production, and "fixed oil" is manufactured in accordance with existing practices. Naturally this general principle is susceptible of some qualification. Oil shales, for instance, vary enormously in physical and chemical properties. In Scotland the shales yield only eighteen to twenty-five gallons to the ton, while in parts of Australia

the yield is 100 to 160 gallons. In Norfolk and Dorset the oil yield is heavy, but the sulphur content is so large as to constitute a serious drawback, though recent experiments in the elimination of the sulphur are said to have been successful. In the past the Scottish shale industry has made its somewhat meagre profits out of a by-product—ammonium sulphate—and at the present time its refineries are mainly employed in dealing with Persian crude oil sent to them by the Anglo-Persian Oil Company. Nevertheless, oil shales, unlike oil pools, can be estimated reasonably accurately as to quantity and quality, and there are known to be almost limitless deposits distributed throughout the world. Any definite shortage in the supply of "free" mineral oil would bring these vast areas of oil-shales into effective economic competition as a supplementary source of supply.

The distillation of "fixed" oil from coal or lignite (brown coal) offers another promising alternative to "free" oil production. A ton of coal may not only yield as many gallons of crude oil and as many pounds of ammonium sulphate as a ton of oil shale, but it leaves a coke residue that is a valuable smokeless fuel. Moreover, oils from coal are already produced as by-products in certain industries, and can thus be sold at prices competitive with those of the products of "free" oil. The crude tar, for instance, distilled in the production of coke (in coke ovens)

and in the manufacture of coal gas, can be refined into benzol for motor fuel, and creosote which can be utilised as fuel oil. Indeed, the demand for benzol exceeds the supply, for no better motor fuel can be found than a mixture of benzol and petrol. In Germany during the war the output of benzol from all sources—coke ovens, gas works, and brown coal-tar distilleries—was about 225,000 tons a year. Even in 1921 she produced 187,000 tons (of which 34,000 tons went to France as reparations). In Great Britain the present output for motor fuel is nearly 40,000 tons—less than half the war-time production. In France the potential output is about 53,000 tons—the actual about 12,000 tons. These quantities are, of course, mere drops in the ocean of European petrol consumption. Commercial interest is therefore turning from the high-temperature distillation of coal, which is involved in coke ovens and gas works, to the low-temperature carbonisation of coal, by which a greater percentage of volatile hydro-carbons can be recovered. The distinctions between high- and low-temperature carbonisation may be shown thus :—

HIGH TEMPERATURE.

1. Large volume of gas.
2. Yield of sulphate of ammonia, say, 20 lbs.
3. Yield of tar, say, 11 gallons per ton.
4. Tar (aromatic series) yields motor spirit and products for manufacture of dyes, explosives, photographic chemicals, drugs.
5. Residue a hard coke with little volatile matter, useful for industrial purposes.

LOW TEMPERATURE.

1. Low volume of gas.
2. Yield of sulphate of ammonia, say, 10 lbs.
3. Yield of tar (crude oil), say, 20 gallons per ton.
4. Tar-crude oil (aliphatic series) yields motor spirit, fuel oil, lubricating oil, paraffin wax, but no useful tar acids except for disinfectants.
5. Residue a soft coke, with 8 to 10 per cent. of volatile matter—a good smokeless household fuel.

(Dr. F. M. Perkin's classification.)

The advantage of making a ton of coal yield a smokeless fuel, motor spirit, fuel and lubricating oils, is obvious, but technical difficulties have so far postponed the full development of this supplement of "free" oil supplies.

The whole aspect of this problem of "fixed" oil production may, however, be changed "in the twinkling of an eye" by some new and cheaper process of distillation or by some satisfactory solution of the problem of the liquefaction of coal or shale by hydrogenation. The process invented by Bergius has already been noted, and it remains to emphasise the enormous significance of a full realisation of his claims, which would make available the whole range of coal, lignite and shale deposits as commercial sources of oil production. The price stimulus of a scarcity of "free" mineral oil would almost certainly bring into commercial being new methods of distillation and solve the secret of hydrogenation.

APPENDIX III

ANNUAL PRODUCTION OF CRUDE OIL BY COUNTRIES FROM 1913 TO 1922

(Figures of the U.S. Geological Survey and American Petroleum Institute)

In Barrels of 42 U.S. Gallons (6·6 Barrels to the Ton)

Year.	Rumania.	United States.	Italy.	Canada.	Russia.	Poland (Galicia).	Japan and Formosa.	Germany.	India.	Dutch East Indies.
1913	13,554,768	248,446,230	47,198	228,080	62,834,356	7,818,130	1,942,009	*995,764	7,930,149	11,172,294
1914	12,826,579	265,762,535	39,849	214,805	67,020,522	*5,033,350	2,738,378	*995,764	7,409,792	11,834,802*
1915	12,029,913	281,104,104	43,898	215,464	68,548,062	4,158,899	3,118,464	*995,764	8,202,674	12,386,800*
1916	10,298,208	300,767,158	50,585	198,123	*72,801,110	6,461,706	2,997,178	*995,764	8,491,137	13,174,399*
1917	*2,681,870	335,315,601	*50,334	205,332	*69,000,000	*5,965,447	2,898,654	*995,764	8,078,843	12,928,955
1918	8,730,235	355,927,716	35,953	304,741	40,456,182	5,591,620	2,449,069	711,260	*8,000,000	13,284,936*
1919	6,614,000	377,719,000	35,000	241,000	25,498,000	6,054,000	2,175,000	234,000	8,735,000	15,428,000*
1920	7,435,344	443,402,000	34,180	196,397	25,429,600	5,606,116	2,139,777	212,046	7,500,000	17,529,210
1921	8,368,000	472,183,000	34,400	190,338	29,150,000	5,167,000	2,447,000	*200,000	8,000,000	16,958,105
1922	9,817,000	551,197,000	31,000	179,000	35,091,000	5,110,000	2,004,000	*200,000	7,980,000	16,000,000

Year.	Peru.	Mexico.	Argentina.	Trinidad.	Egypt.	Persia.	Venezuela.	France (Alsace).	Algeria.	England.	Sarawak (B. Borneo).	Other Countries.	Total.
1913	2,133,261	25,696,291	130,618	503,616	94,635							*20,000	383,547,399
1914	1,917,802	26,235,403	275,500	643,533	777,038							*20,000	403,745,342
1915	2,487,251	32,910,508	516,120	*750,000	262,208							*10,000	427,740,129
1916	2,550,645	40,545,712	796,920	928,581	411,000							*25,000	461,493,226
1917	2,533,417	55,292,770	1,144,437	1,599,455	1,008,750	6,856,063	127,743					21,167	506,702,902
1918	*2,536,102	63,828,327	1,321,315	2,082,068	2,079,750	7,200,000	190,080					—	514,729,354
1919	2,616,000	87,073,000	1,183,000	1,841,000	1,501,000	6,412,000	425,000	344,000	5,000	1,900	‡	991,000	545,125,928
1920	2,816,649	163,540,000	1,665,989	1,083,027	1,043,000	12,352,665	456,966	—	3,916	2,909	1,015,949	188	693,195,928
1921	3,699,280	193,397,587	1,747,410	2,354,000	1,255,000	16,672,540	1,433,000	392,000	2,688	2,652	1,411,000	—	765,064,600
1922	5,332,000	185,057,000	2,674,000	2,445,000	1,188,000	21,154,000	2,335,000	494,000	9,000	—	2,915,000	328,000†	851,540,000

* Estimated. † Includes Colombia, 323,000. ‡ Included in Others.

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